FILE NO. 120-200170

TOSHIBA

SERVICE MANUAL

VIDEO CASSETTE RECORDER

VCP-C8

MAY, 2001

TOSHIBA VIDEO PRODUCTS PTE LTD

438B ALEXANDRA ROAD BLOCK B #06-01
ALEXANDRA TECHNOPARK
SINGAPORE 119968

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1. Precautions

1. Be sure that all of the built-in protective devices are replaced. Restore any missing protective shields.

2. When reinstalling the chassis and its assemblies, be sure to restore all pretective devices, including : control knobs and compartment covers.

3. Make sure that there are no cabinet openings through which people--particularly children --might insert fingers and contact dangerous voltages. Such openings include the spacing between the picture tube and the cabinet mask, excessively wide cabinet ventilation slots, and improperly fitted back covers.

   If the measured resistance is less than 1.0 megohm or greater than 5.2 megohms, an abnormality exists that must be corrected before the unit is returned to the customer.

4. Leakage Current Hot Check (See Fig. 1-1) :
   Warning : Do not use an isolation transformer during this test. Use a leakage current tester or a metering system that complies with American National Standards Institute (ANSI C101.1, *Leakage Current for Appliances*), and Underwriters Laboratories (*UL Publication UL1410, 59.7*).

5. With the unit completely reassembled, plug the AC line cord directly the power outlet. With the unit's AC switch first in the ON position and then OFF, measure the current between a known erath ground (metal water pipe, conduit, etc.) and all exposed metal parts, including : antennas, handle brackets, metal cabinets, screwheads and control shafts. The current measured should not exceed 0.5 milliamp. Reverse the power-plug prongs in the AC outlet and repeat the test.

6. X-ray Limits :
   The picture tube is designed to prohibit X-ray emissions. To ensure continued X-ray protection, replace the picture tube only with one that is the same type as the original.

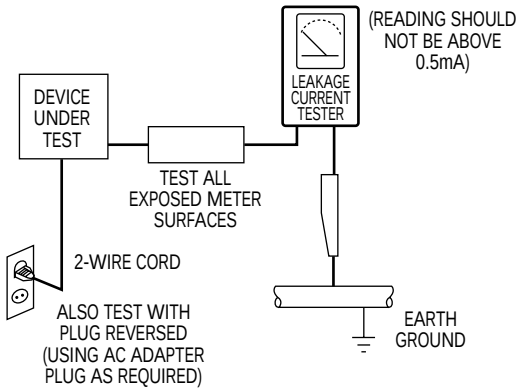

(READING SHOULD NOT BE ABOVE 0.5mA)
LEAKAGE CURRENT TESTER
DEVICE UNDER TEST
TEST ALL EXPOSED METER SURFACES
2-WIRE CORD
ALSO TEST WITH PLUG REVERSED (USING AC ADAPTER PLUG AS REQUIRED)
EARTH GROUND

Fig. 1-1 AC Leakage Test

7. Antenna Cold Check :
   With the unit's AC plug disconnected from the AC source, connect an electrical jumper across the two AC prongs. Connect one lead of the ohmmeter to an AC prong.
   Connect the other lead to the coaxial connector.

8. High Voltage Limit :
   High voltage must be measured each time servicing is done on the B+, horizontal deflection or high voltage circuits.

   Heed the high voltage limits. These include the *X-ray protection Specifications Label*, and the *Product Safety and X-ray Warning Note* on the service data schematic.

9. Some semiconductor ("solid state") devices are easily damaged by static electricity.
   Such components are called Electrostatically Sensitive Devices (ESDs); examples include integrated circuits and some field-effect transistors. The following techniques will reduce the occurrence of component damage caused by static electricity.

10. Immediately before handling any semiconductor components or assemblies, drain the electrostatic charge from your body by touching a known earth ground. Alternatively, wear a discharging Wrist-strap device. (Be sure to remove it prior to applying power--this is an electric shock precaution.)

11. High voltage is maintained within specified limits by close-tolerance, safety-related components and adjustments. If the high voltage exceeds the specified limits, check each of the special components.

12. Design Alteration Warning :
Never alter or add to the mechanical or electrical design of this unit. Example : Do not add auxiliary audio or video connectors.
Such alterations might create a safety hazard. Also, any design changes or additions will void the manufacturer's warranty.

13. Hot Chassis Warning :
Some TV receiver chassis are electrically connected directly to one conductor of the AC power cord. If an isolation transformer is not used, these units may be safely serviced only if the AC power plug is inserted so that the chassis is connected to the ground side of the AC source.

To confirm that the AC power plug is inserted correctly, do the following : Using an AC voltmeter, measure the voltage between the chassis and a known earth ground. If the reading is greater than 1.0V, remove the AC power plug, reverse its polarity and reinsert. Re-measure the voltage between the chassis and ground.

14. Some TV chassis are designed to operate with 85 volts AC between chassis and ground, regardless of the AC plug polarity. These units can be safely serviced only if an isolation transformer inserted between the receiver and the power source.

15. Never defeat any of the B+ voltage interlocks. Do not apply AC power to the unit (or any of its assemblies) unless all solid-state heat sinks are correctly installed.

16. Always connect a test instrument's ground lead to the instrument chassis ground before connecting the positive lead; always remove the instrument's ground lead last.

17. Observe the original lead dress, especially near the following areas : Antenna wiring, sharp edges, and especially the AC and high voltage power supplies. Always inspect for pinched, out-of-place, or frayed wiring. Do not change the spacing between components and the printed circuit board. Check the AC power cord for damage. Make sure that leads and components do not touch thermally hot parts.

18. Picture Tube Implosion Warning :
The picture tube in this receiver employs "integral implosion" protection. To ensure continued implosion protection, make sure that the replacement picture tube is the same as the original.

19. Do not remove, install or handle the picture tube without first putting on shatterproof goggles equipped with side shields. Never handle the picture tube by its neck. Some "in-line" picture tubes are equipped with a permanently attached deflection yoke; do not try to remove such "permanently attached" yokes from the picture tube.

20. Product Safety Notice :
Some electrical and mechanical parts have special safety-related characteristics which might not be obvious from visual inspection. These safety features and the protection they give might be lost if the replacement component differs from the original--even if the replacement is rated for higher voltage, wattage, etc.

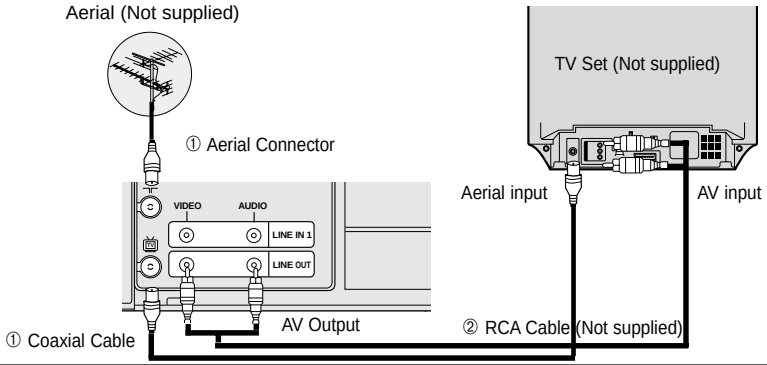
Components that are critical for safety are indicated in the circuit diagram by shading, (or).
Use replacement components that have the same ratings, especially for flame resistance and dielectric strength specifications. A replacement part that does not have the same safety characteristics as the original might create shock, fire or other hazards.

2. Reference Information

2-1 Operation of Controls

Connecting Your VCP to the TV

◆ ***Make sure that both the television and the VCP are switched <u>off</u> before connecting the cables.***



Tuning Your Television for the VCP

You must tune your television for the VCP only if you are not using a RCA cable.

➢ To view pictures from your VCP when a RCA cable is used, the television must be set to the audio/video mode (AV).

1 Switch on the television.

2 Switch on the VCP by pressing ON/STANDBY on the front of the VCP or ON/STANDBY on the remote control.

3 Select a programme position on the television to be reserved for use with your VCP.

4 Insert the video cassette in the VCP. Check that the VCP starts reading the cassette; if not, press ► button.

5 Start a scan on your television or set the television to UHF channel 36.

6 Fine tune the television until the pictures and sound are obtained clearly.

7 If you cannot find the pictures and sound, or there is interference from nearby channels, change the VCP OUTPUT CHANNEL to adjust the frequency.

8 When the picture and sound are perfectly clear store this channel at the desired programme position on the television.
<u>Result</u>: That programme is now reserved for use with your VCP.

Selecting the RF OUT Sound Mode (G, K, I)

You must choose the sound mode (G, K or I) according to the TV set connected to your VCP.

1 Press MENU on the remote control.
<u>Result</u>: The programming menu is displayed.

2 Press the corresponding △ or ▽ buttons, until the cursor is placed in front of the **USER SET** option.

3 Press ▷ button to select this option.
<u>Result</u>: The **USER SET** menu is displayed.

4 Press the corresponding △ or ▽ buttons,until the cursor is placed in front of the **TV SYSTEM** option

5 Press the ◁ or ▷ buttons to select G, K or I.

6 On completion, press MENU twice to exit the menu. Then tune your television again.

Setting the VCP Output Channel

Your VCP output channel may need to be changed if the pictures suffers from interference or if your TV cannot find the pictures. Also, you can change the VCP output channel to adjust the frequency in which information is displayed on the screen.

1 Press MENU on the remote control.
<u>Result</u>: The programming menu is displayed.

2 Press the corresponding △ or ▽ buttons, until the cursor is placed in front of the **USER SET** option.

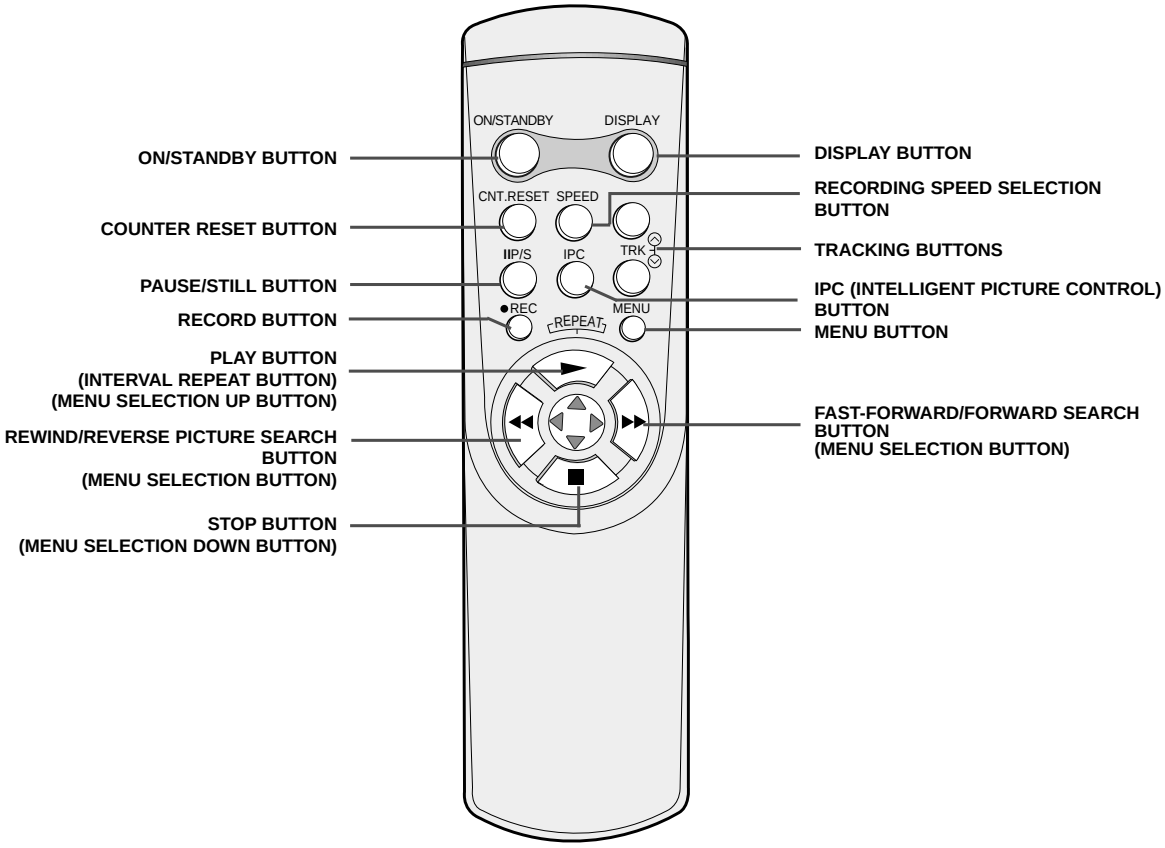
3 And then press ▷ button to select this option.
<u>Result</u>: The **USER SET** menu is displayed.

4 Press the △ or ▽ buttons, until the cursor is placed in front of the **VCR OUTPUT CH** option.

5 Select the required output channel (CH21~CH69) by pressing the ◁ or ▷ buttons.

6 On completion, press MENU twice to exit the menu. Then tune your television again.

Infrared Remote Control



Inserting Batteries in the Remote Control

You must insert or replace the batteries in the remote control when you:

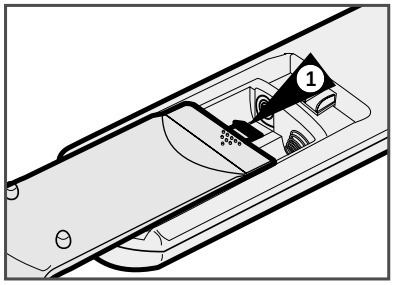
- ***Purchase the video cassette player***
- ***Find that the remote control is no longer working correctly***

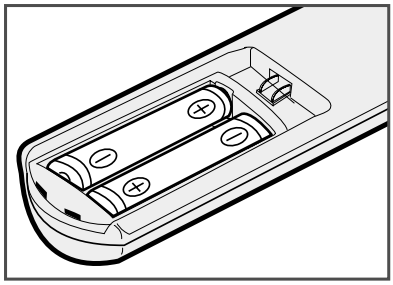
1 Push the tab in the direction of the arrow to release the battery compartment cover on the rear of the remote control.

2 Insert two AA, R6 or equivalent batteries, taking care to respect the polarities:
- + on the battery with + on the remote control
- – on the battery with – on the remote control

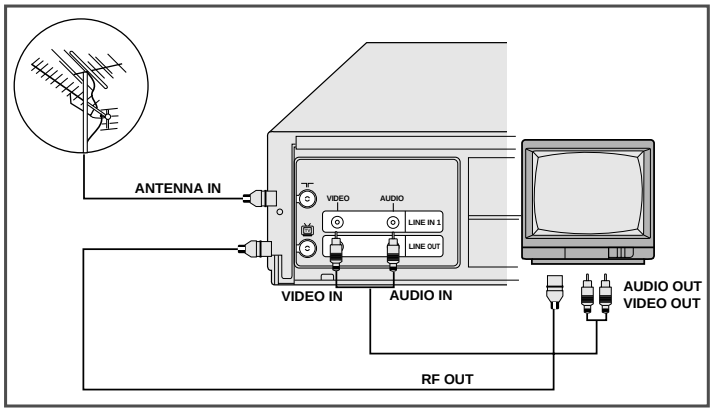
3 Replace the cover by aligning it with the base of the remote control and pushing it back into place.

➢ Do not mix different battery types (manganese and alkaline for example).





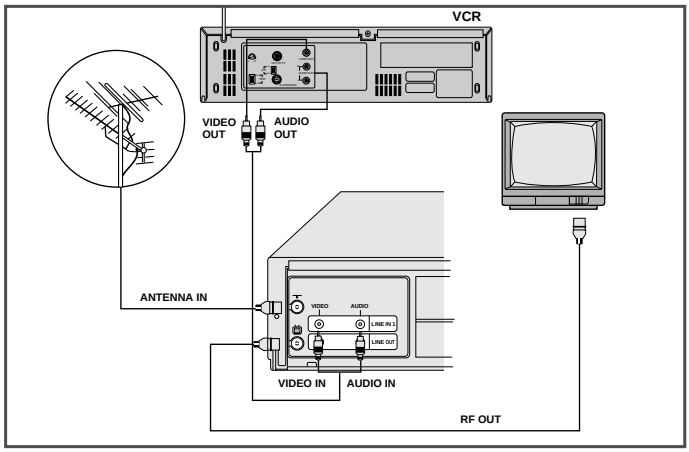
Recording From TV



1. Turn on the TV. Tune your TV channel.
2. Connect your VCP to the TV by A/V cable as above figure.
3. Select the recording speed (SP/LP) by pressing the SPEED button.
4. Hold down the REC (●) button to start line recording.
5. Press the STOP (■) button to end line recording.

➢ Line recording is not available for the TV which has no A/V OUTPUT JACK.

Recording from Another VCR



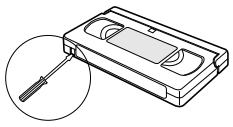
1. Turn on the TV.
2. Connect the playback side VCR's A/V cable to the recording side VCP's video and audio in (rear panel).
3. Select the recording speed (SP/LP) by pressing the SPEED button.
4. Begin playback on the playback side VCR and hold down REC (●) button.
5. Press the STOP (■) button to end line recording.

You can copy a cassette to your VCP from another video source, such as another VCR.

☛ It is an infringement of copyright laws to copy prerecorded cassettes or to re-record them in any form without the permission of the owners of the corresponding copyright.

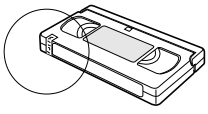
➢ **To prevent accidental erasure**

Remove this safety tab with a screwdriver.



➢ **To record again**

Cover the tab hole with adhesive tape.



➢ **Setting the colour system according to the colour system of a source you want to record.**

Video system of the recording source	Colour system of a VCP	Video system recorded on the tape
PAL	AUTO or PAL	PAL
SECAM	MESECAM	MESECAM
NTSC	NT3.58	NTSC

Playing a Cassette

This function allows you to play back any pre-recorded cassette.

1 Switch on both the television and your VCP.

2 Select the AV input on the television for use with your VCP.

3 Insert the video cassette to be played. If the safety tab on the cassette is intact, press ▶ button.
Otherwise, the cassette is played automatically.
➢ When a cassette is loaded, the tape position is optimized automatically to reduce disturbance (Digital Auto Tracking). When playing a cassette, if the end of the tape is reached, the cassette is rewound automatically.

4

To...	Then press...
Stop the playback	■ (STOP).
Eject the cassette	⏏ (EJECT).

Adjusting Picture Alignment Manually

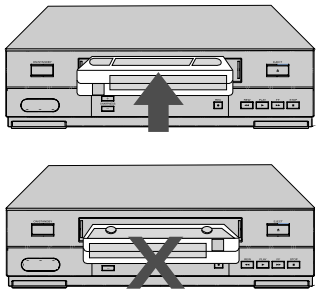
The Fine Adjustment feature allows you to adjust the alignment manually to obtain the best possible picture.

When noise bars or streaks appear during playback, adjust alignment manually by pressing the TRK (⌃ or ⌄) buttons until the picture is clear and stable.

Result:
- ◆ The tracking bar appears.
- ◆ The image is adjusted.
- ◆ The tracking bar disappears when you release the button.

Using a Cassette

Push the cassette into the cassette compartment with the window side facing up and the label side towards the front.



Warning

Do not insert your hands or any foreign objects into the compartment. This may result in injury or damage.
Take special care with children to avoid accidents.

Selecting the Appropriate System Standard

Before recording a cassette, you can select the required system standard. Otherwise, the system automatically selects the reception standard when you select AUTO.

➢ ◆ When playing back a cassette, the standard is automatically selected by the VCP.
◆ When you playback an NTSC-recorded tape on this VCP make a setting on the color system according to your TV. If your TV is a PAL system only TV, set NTPB. If your TV is Multi System TV (NTSC 4.43 compatible), set NT4.43 and you can record NT4.43.

1 Press MENU on the remote control.
Result: The programming menu is displayed.

2 Press the corresponding △ or ▽ buttons, until the cursor is placed in front of the **USER SET** option.

3 Press the ▷ button to select this option.
Result: The **USER SET** menu is displayed.

4 Press the corresponding △ or ▽ buttons, until the cursor is placed in front of the **COLOR SYSTEM** option.

5 Press the ▷ button to select AUTO → PAL → MESECAM → B/W or NT3.58 → NT4.43 → NTPB.

AUTO	When playing back a cassette, the system standard is automatically selected by the VCP.
B/W	Black and White

6 On completion, press MENU twice to exit the menu.

➢ **Making the colour system setting according to your TV and a tape you want to play back.**

Video system of a cassette	Your TV system	Colour system of a VCP
PAL	PAL	AUTO or PAL
MESECAM	SECAM	AUTO or MESECAM
NTSC	PAL	AUTO or NTPB
	NT4.43	AUTO or NT4.43
	NT3.58	AUTO or NT3.58

Playing a Sequence Frame by Frame

You can:

- ***Stop the cassette at a given frame (image)***
- ***Advance one frame at a time***

➢ No sound is heard when playing back frame by frame.

1 Press:
- ► to start playing the cassette
- II P/S to stop the tape at a given frame
- II P/S to advance frame by frame

2 To return to normal playback, press ►.

☛ When you have been using the Frame-by-Frame function for more than about five minutes, the VCP will automatically play to protect the cassette and video heads.

➢ Vertical stability: When playing back frame by frame, interference may be seen on the screen. Press the TRK (⌃ or ⌄) buttons to minimize this effect.

Using the Tape Counter

The tape counter:

- ***Indicates the elapsed time in the play and record modes***
- ***Is reset when a cassette is inserted in the VCP***
- ***Allows you to find the beginning of a sequence easily***

☛ If the remaining time is to be calculated correctly, you must indicate the type of cassette being used.

1 Insert a cassette in your VCP.

2 Press DISPLAY.
➢ The tape counter does not necessarily start from zero at the beginning of the tape.

3 To set the tape counter to zero at the beginning of a sequence:
- Press DISPLAY twice to display the counter
- Press CNT.RESET when you want to set the tape counter to zero

4 To fast-forward or rewind to the sequence at which the counter was set to zero, simply press ◄◄ or ►►.
Result: The VCP stops automatically when the counter reaches zero.

➢ Some VCP information, such as the counter, can be displayed on the television screen.
Press DISPLAY:
- Once to display the current function, recording speed and counter
- Twice to display the counter only
- Three times to display the time remaining on the cassette
- Four times to clear the display

Selecting the Recording Speed

You can record a cassette at two different speeds:

- ***SP (Standard Play)***
- ***LP (Long Play)***

In Long Play modes:

- ***Each cassette lasts twice as long***
- ***The recording is of a slightly lower quality***

To record a cassette...	Press the SPEED button on the remote control, until...
In standard play mode	**SP** is displayed.
In long play mode	**LP** is displayed.

Type	Recording Time (in SP)
E-180	180 mins. or 3 hours
E-240	240 mins. or 4 hours
E-260	260 mins. or 4 hours and 20 mins.
E-300	300 mins. or 5 hours

Auto Power Off

The Auto Power Off feature automatically turns off your VCP if no signal is received and you do not press any button for the selected time.

1. Press MENU on the remote control.
   Result: The menu is displayed.
2. Press the corresponding △ or ▽ buttons, until the cursor is placed in front of the **EASY OPERATION** option.
3. Press the ▷ button to select this option.
   Result: The **EASY OPERATION** menu is displayed.
4. Press the corresponding △ or ▽ buttons, until the cursor is placed in front of the **AUTO POWER OFF** option.
5. Press the ▷ button, until you select the time of Auto Power off interval.

   OFF → 2HOUR → 3HOUR
6. On completion, press MENU twice to exit the menu.

Auto Repeat Play

You can set repeat play to repeat the tape continuously from beginning to end.

1. Press MENU on the remote control.
   Result: The programming menu is displayed.
2. Press the corresponding △ or ▽ buttons, until the cursor is placed in front of the **EASY OPERATION** option.
3. Press the ▷ button to select this option.
   Result: The **EASY OPERATION** menu is displayed.
4. Press the corresponding △ or ▽ buttons, until the cursor is placed in front of the **REPEAT PLAY** option.
5.

To...	Press ◁ or ▷, until...
Repeat play	**ON** is displayed.
Do not wish to repeat play	**OFF** is displayed.

6. On completion, press MENU twice to exit the menu.

Interval Repeat Play

You can set interval repeat play to repeat the cassette several times for special interval.

1. Press MENU on the remote control.
   Result: The menu is displayed.
2. Press the corresponding △ or ▽ buttons, until the cursor is placed in front of the **EASY OPERATION** option.
3. Press the ▷ button to select this option.
   Result: The **EASY OPERATION** menu is displayed.
4. Press the corresponding △ or ▽ buttons, until the cursor is placed in front of the **NO. OF INTERVAL REPEAT** option.
5.

To...	Press ▷, until...
Interval repeat play	5, 10, 15, off is displayed. (choose repeat time 5 times, 10 times, 15 times)
Cancel interval repeat play	**OFF** is displayed.

6. On completion, press MENU twice to exit the menu.
7. To select interval during playback, press the REPEAT button at the desired start point.
   Result: "**INTERVAL REPEAT SETTING**" is displayed.
   Press the REPEAT button one more time at the desired end point.
   Result: The tape is automatically rewound to the start point. "**INTERVAL REPEAT**" is displayed.

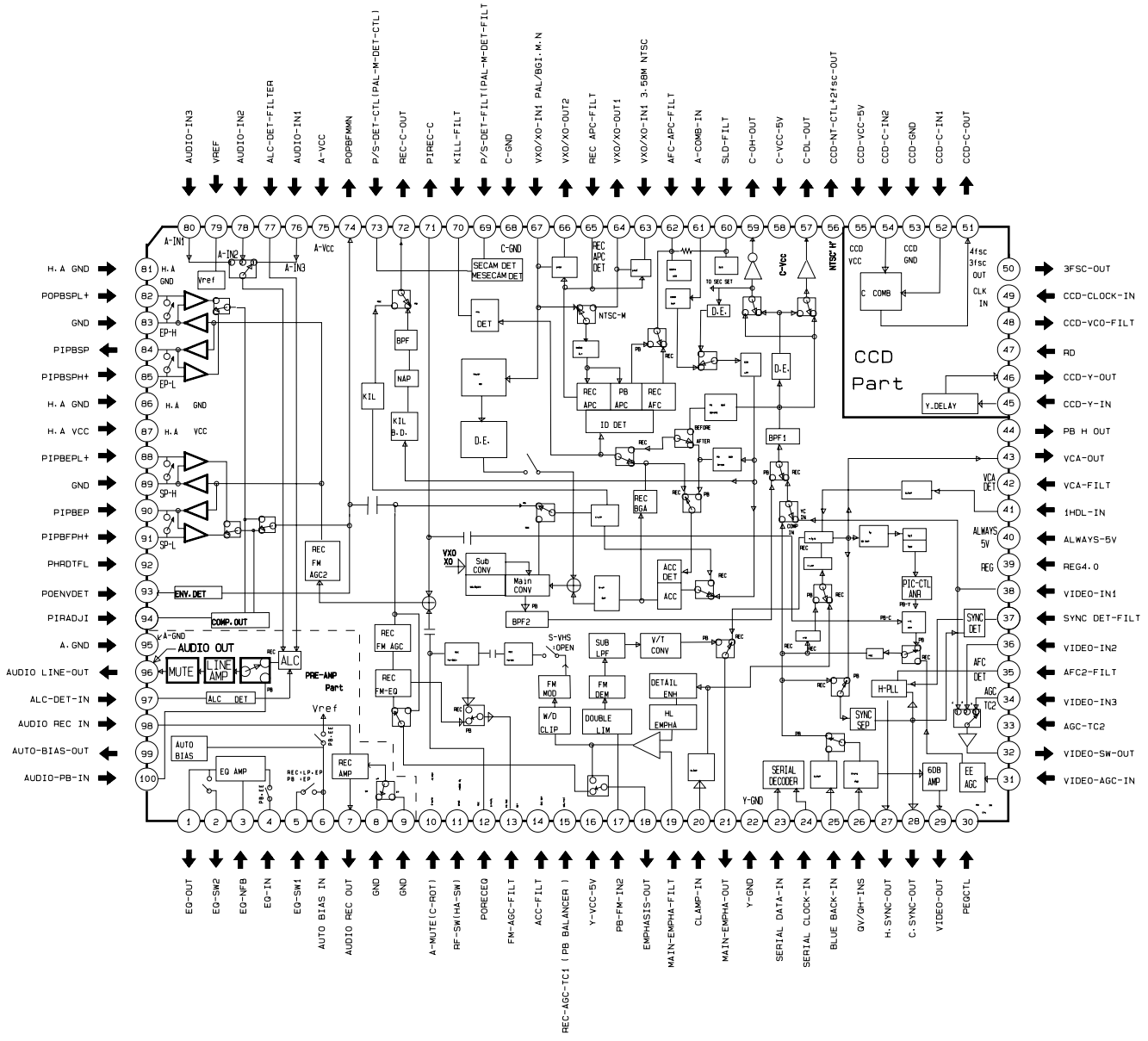
Intelligent Picture Control

Intelligent picture control feature allows you to adjust the sharpness of the image automatically according to your own preferences.

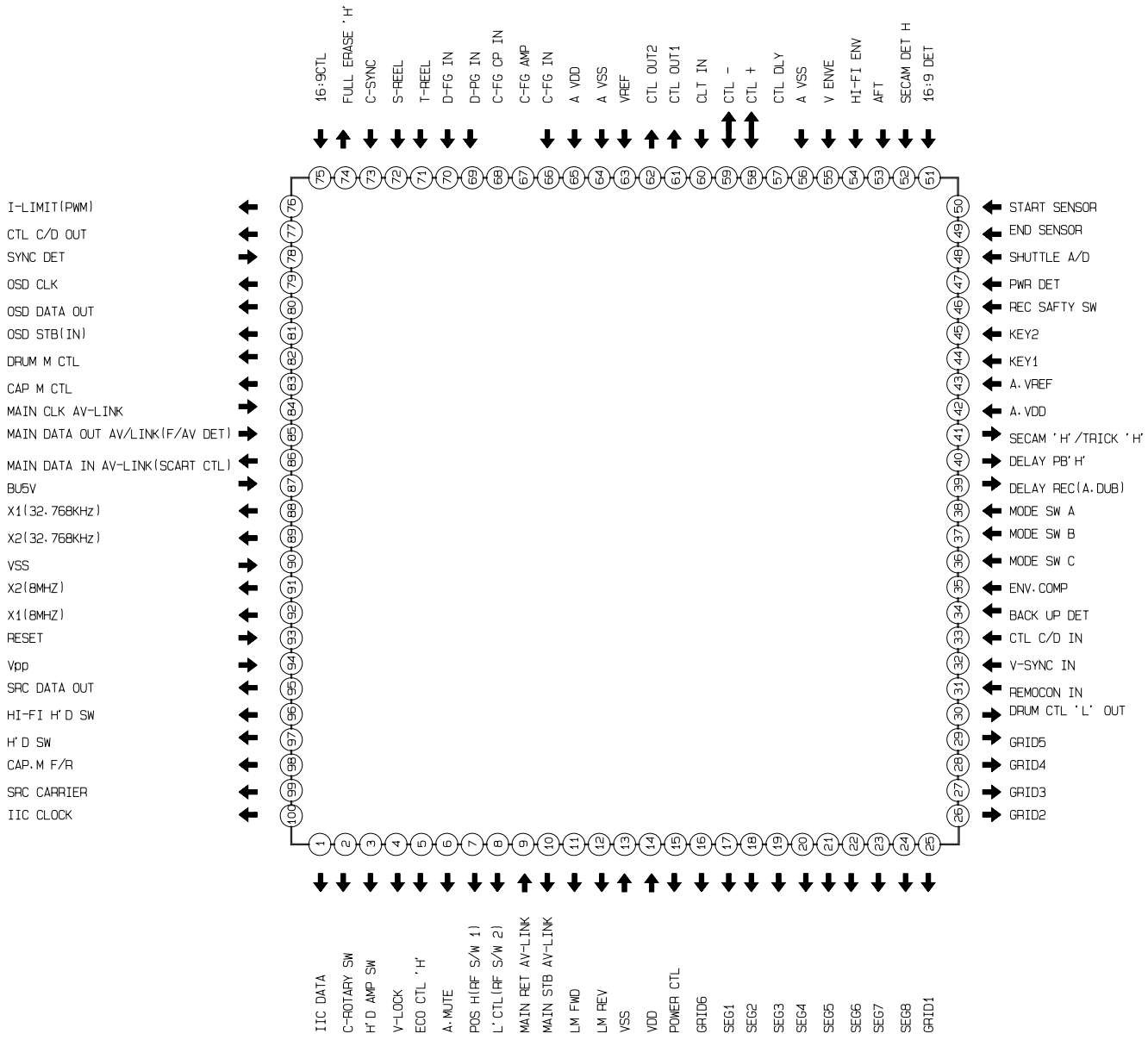
1. During playback, press the MENU button on the remote control.
   Result: The menu is displayed.
2. Press the corresponding △ or ▽ buttons, until the cursor is placed in front of the **USER SET** option.
3. Press the ▷ button to select this option.
   Result: The **USER SET** menu is displayed.
4. Press the corresponding △ or ▽ buttons, until the cursor is placed in front of the **IPC** option.
5. Press the ▷ button to select the IPC (intelligent picture control) option.
   Press the IPC button on the remote control.
   Result: The **PICTURE** menu appears on the display.
   ➢ When intelligent picture control mode is **ON**, the sharpness of the image is adjusted automatically.
6. To adjust the sharpness manually, press the ▽ button to turn the IPC mode OFF.
7. Press the ◁ or ▷ buttons until the picture is displayed according to your preferences.
   To adjust the sharpness manually press the SHARPNESS + or - buttons on the front of the VCR.
   ➢ If you do not press a button within ten seconds, the **PICTURE** menu disappears automatically.
8. On completion, press the MENU button again.

2-2 IC Blocks

2-2-1 IC301 (LA71598M)



2-2-3 IC601 (uPD784928)



3. Product Specifications

Design and specifications are subject to change without notice.

Format	VHS PAL standard
Heads	Video: 2 rotary heads
	Audio/Control: 1 stationary head
Erase: 1 full track erase head	Erase: 1 full track erase head
Television system	STANDARD G, I, K
Luminance	FM azimuth recording
Colour system	PAL/MESECAM/NTSC: Down converted
	subcarrier phase shifted direct recording
	NTSC PB on PAL TV
Tape speed	SP 23.39 mm/sec
	LP 11.69 mm/sec
Recording/playback time	SP 3 hours (E-180 Tape)
	LP 6 hours (E-180 Tape)
REW time	About 150 sec in REW with E-180
VIDEO	
Input	0.5 to 2.0 Vp-p; 75 ohm unbalanced
Output	1.0 ± 0.2 Vp-p; 75 ohm unbalanced
Signal-to-noise ratio	Better than 43 dB (SP)
Horizontal resolution	More than 240 lines (SP)
AUDIO	
Input	-8 dBm, 47 Kohm unbalanced
Output	-8 ± 3 dBm, 1 Kohm unbalanced
Wow and flutter (WTD)	0.4% max (SP)
Signal-to-noise ratio	42 dB min (IHF A filter)
Frequency response	100Hz - 8KHz
Power requirement	AC 100-240V 50/60 Hz
Power consumption	Approx. 15 watts
Operation temperature	41°F-104°F (5°C-40°C)
Operation humidity	10%-75%
Weight	3.1 Kg (net)

MEMO

4. Disassembly and Reassembly

4-1 Cabinet Assembly

4-1-1 Cabinet Top Removal

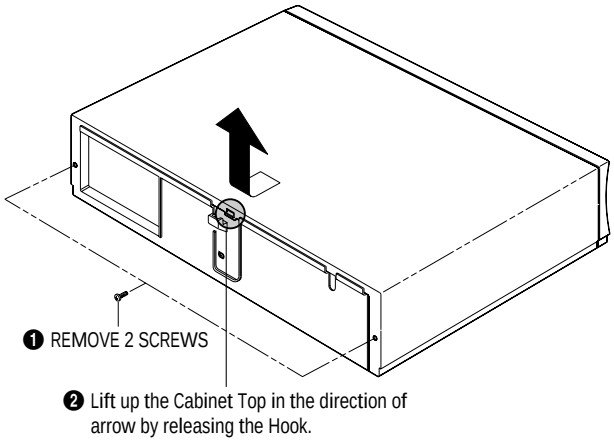


Fig. 4-1 Cabinet Top Removal

4-1-2 Bottom Cover Removal

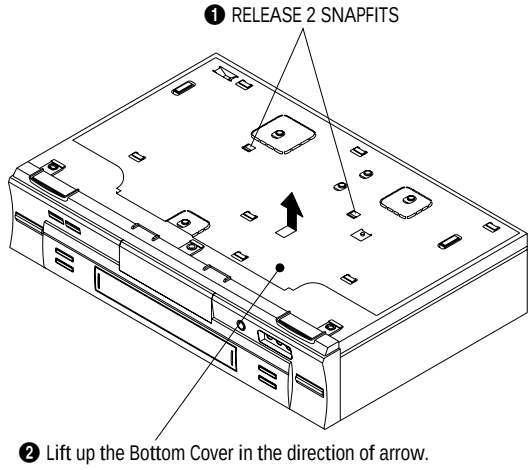


Fig. 4-2 Bottom Cover Removal

4-1-3 Ass'y Front Panel Removal

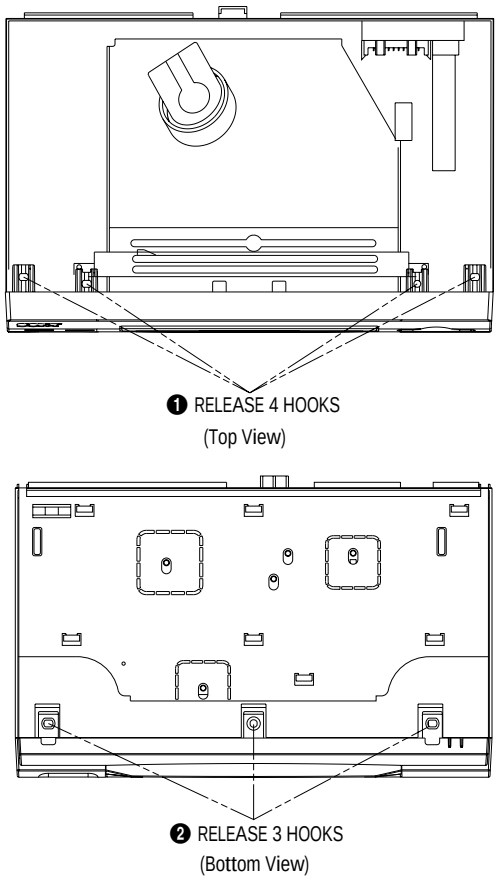


Fig. 4-3 Ass'y Front Panel Removal

4-1-5 Chassis Removal

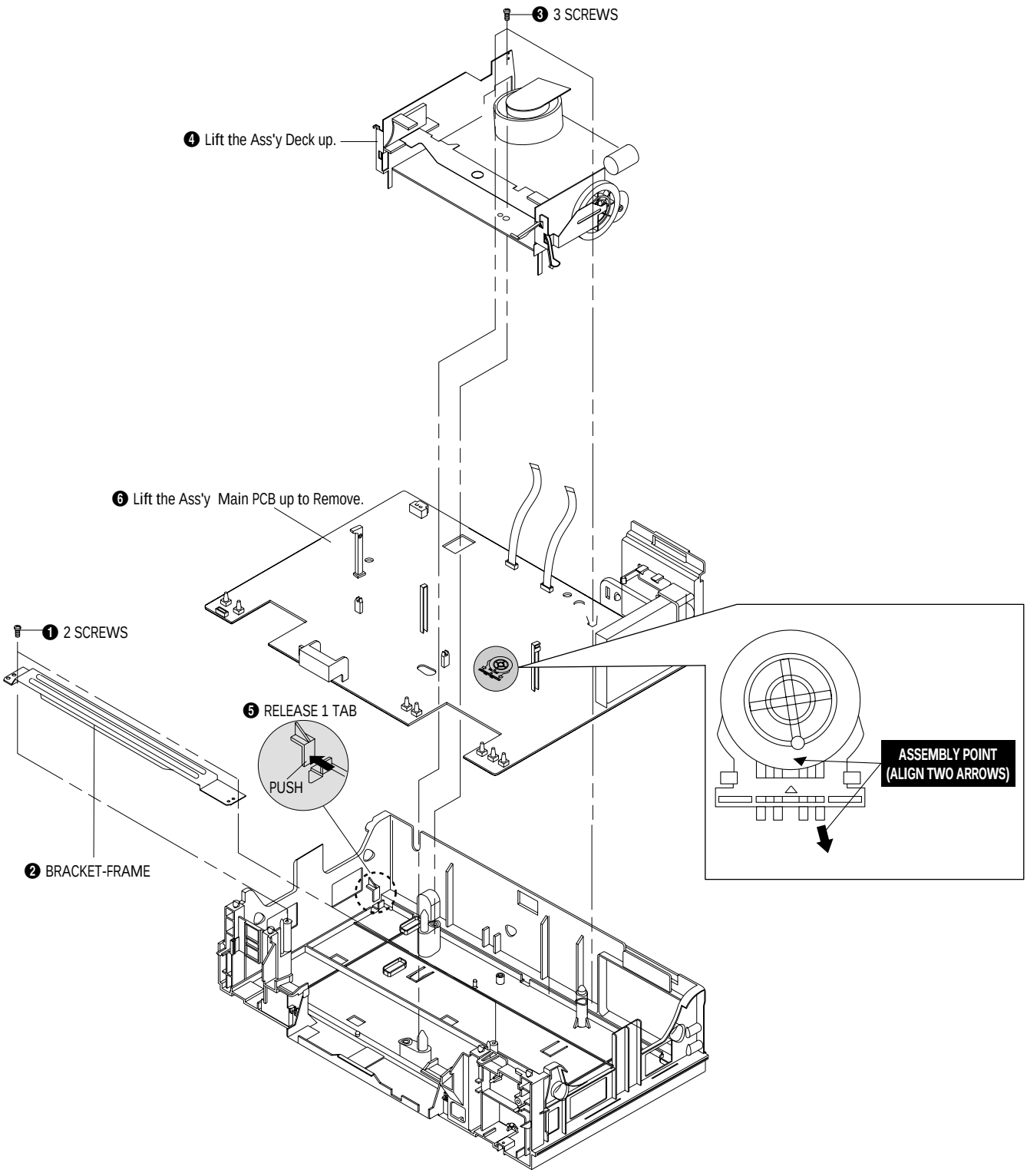


Fig. 4-5 Chassis Removal

4-2 Deck Parts Locations

4-2-1 Top View

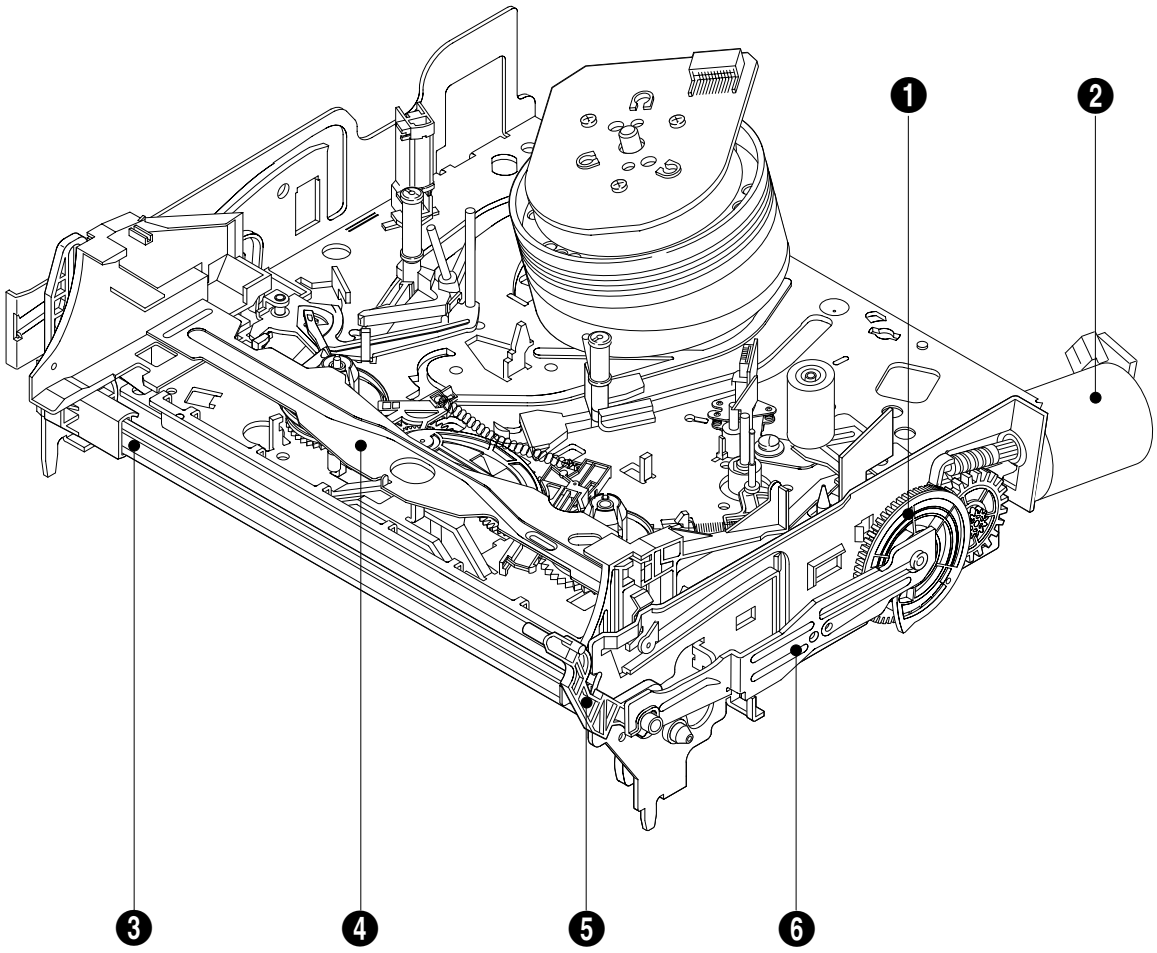


Fig. 4-6 Top parts Location-1

❶ GEAR FL CAM
❷ MOTOR LOADING ASS'Y
❸ LEVER FL ARM ASS'Y
❹ HOLDER FL CASSETTE ASS'Y
❺ LEVER FL DOOR
❻ SLIDER FL DRIVE

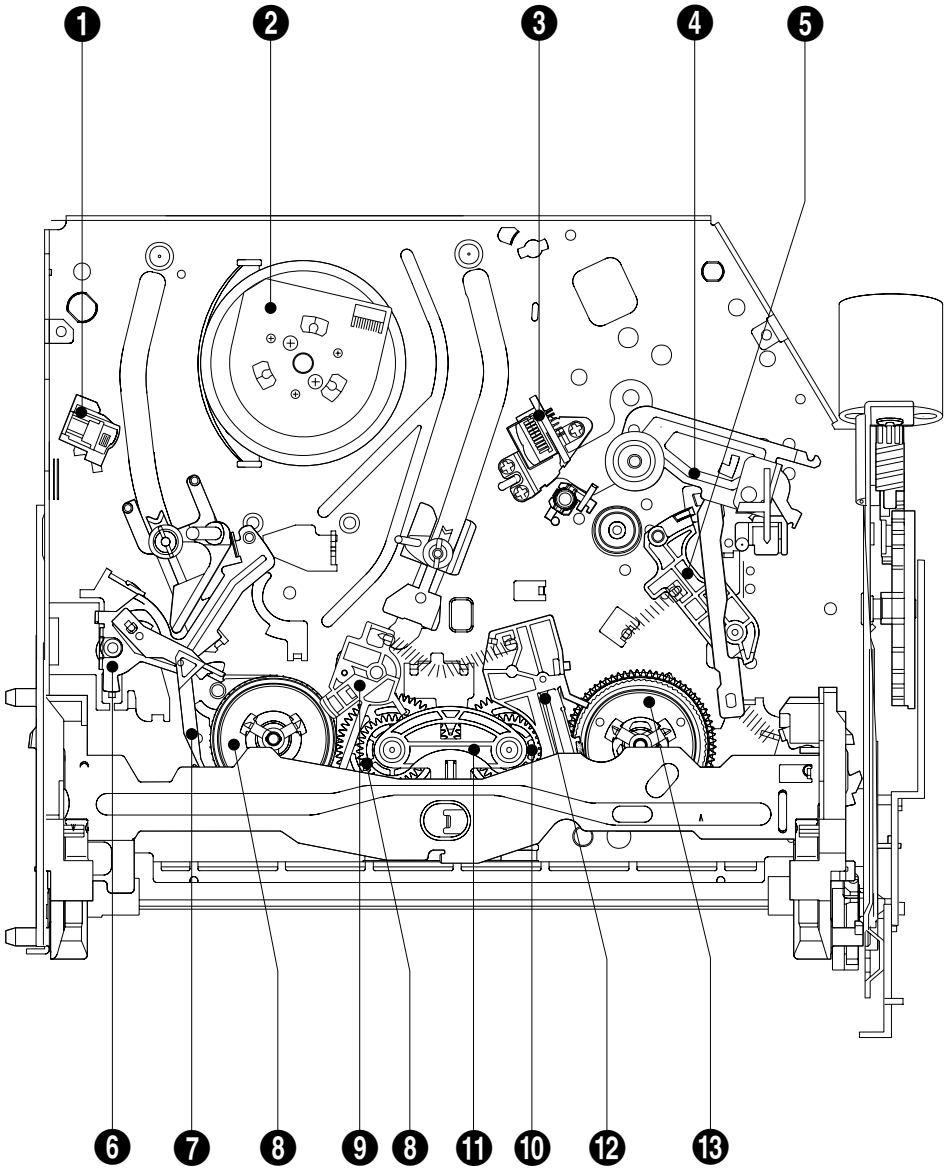


Fig. 4-7 Top Parts Location-2

1. FE HEAD
2. CYLINDER ASS'Y
3. ACE HEAD ASS'Y
4. LEVER UNIT PINCH ASS'Y
5. LEVER #9 GUIDE ASS'Y
6. LEVER TENSION ASS'Y
7. BAND BRAKE ASS'Y
8. DISK S REEL
9. LEVER S BRAKE ASS'Y
10. GEAR IDLE
11. LEVER IDLE
12. LEVER T BRAKE ASS'Y
13. DISK T REEL

4-2-2 Bottom View

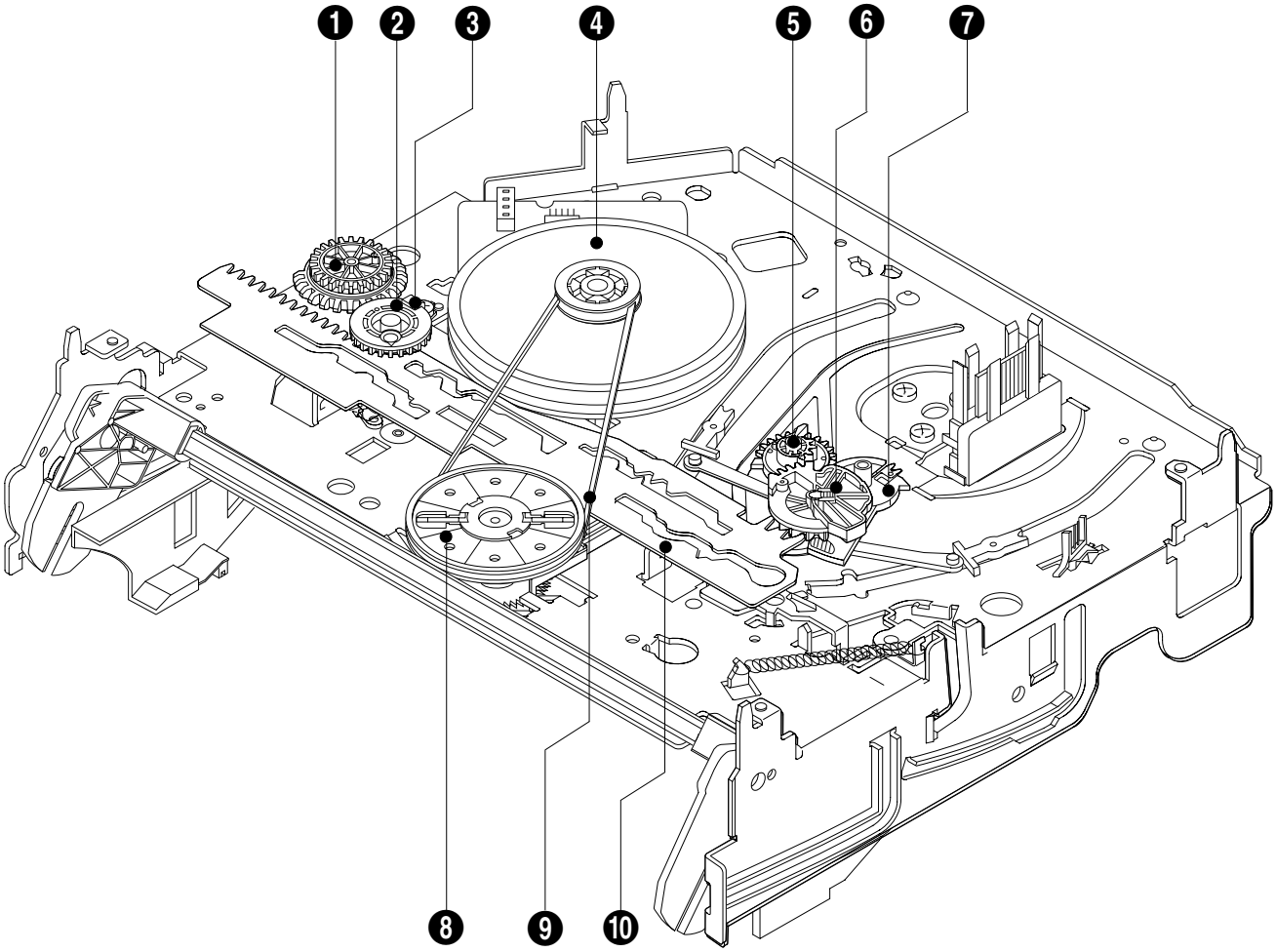


Fig. 4-8 Bottom Parts Location

1. GEAR JOINT 1
2. GEAR JOINT 2
3. BRACKET GEAR
4. MOTOR CAPSTAN ASS'Y
5. LEVER T LOAD ASS'Y
6. GEAR LOADING DRIVE
7. LEVER S LOAD ASS'Y
8. HOLDER CLUTCH ASS'Y
9. BELT PULLEY
10. SLIDER CAM

4-3 Main Deck

4-3-1 Lever FL Door Removal

1) Push the Holder FL Cassette Ass'y ❶ about 20mm in the direction of arrow "A".
2) Rotate the Lever FL Door ❷ in the direction of arrow "B".
3) Release the Hook ❸ and Remove the Lever FL Door ❷ in the direction of arrow "C".

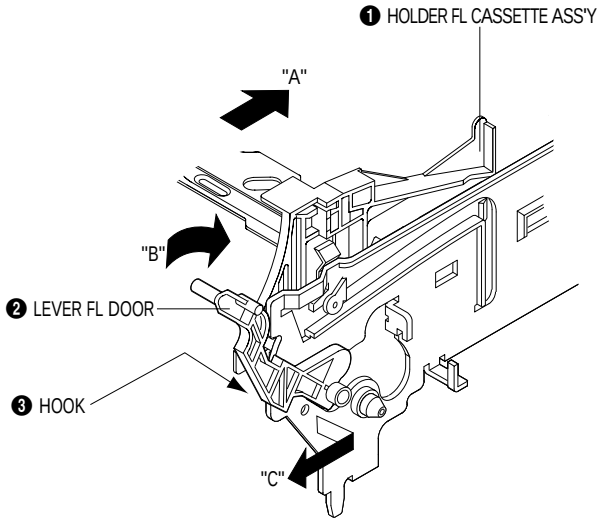


Fig. 4-9 Lever FL Door Removal

4-3-2 Holder FL Cassette Ass'y Removal

1) Pull the Holder FL Cassette Ass'y ❶ to the eject position.
2) Pull the Holder FL Cassette Ass'y ❶ as grasping the Holder FL Cassette Ass'y ❶ and Lever FL Cassette-R ❷ in the same time to release hooking from Main Base until the Boss [A] of Holder FL Cassette Ass'y ❶ is taken out from the Rail [B].
3) Lift the Holder FL Cassette Ass'y ❶, in this time, you have to grasp the Lever FL Cassette-R ❷ Continuously until the Holder FL Cassette Ass'y ❶ is taken out completely.

Note : Be sure to insert Lever FL Cassette-R ❷ in the direction of "A" to prevent separation and breakage of the Lever FL Cassette-R ❷ at disassembling and reassembling.

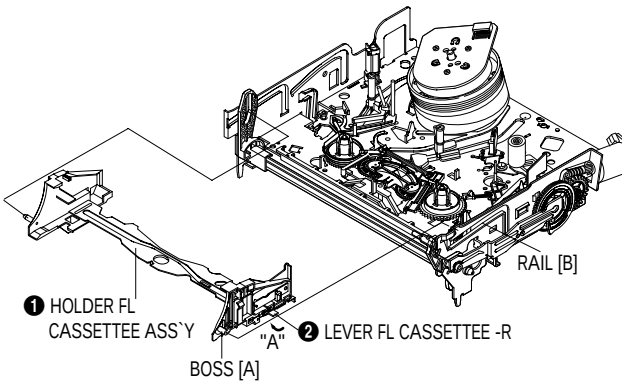


Fig. 4-10 Holder FL Cassette Ass'y Removal

4-3-3 Slider FL Drive, Gear FL Cam Removal

1) Pull the Slider FL Drive ❶ to the front direction.
2) Remove the Slider FL Drive ❶ in the direction of arrow. (Refer to Fig. 4-11)
3) Remove the Gear FL cam ❷.

Note : When reinstalling be sure to reassemble Slider FL drive ❶ after you insert the Boss of Lever FL ARM-R in Groove of Slider Fl drive ❶.

Assembly : Align the Gear FL Cam ❶ with the Gear worm wheel Post as shown drawing.
(Refer to Timing point)

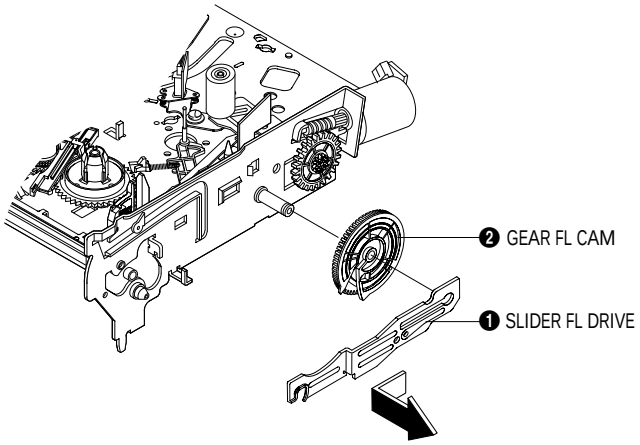


Fig. 4-11 Slider FL Drive Removal

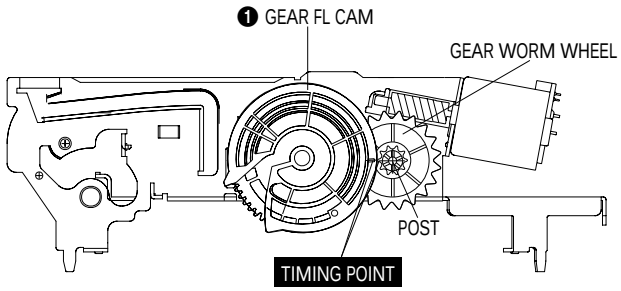


Fig. 4-12 Gear FL Cam, Gear Worm

4-3-4 Lever FL Arm Ass'y Removal

1) Push the hole "A" in the direction of arrow "B" use the pin.(about Dia. 2.5)
2) Pull out the Lever FL Arm Ass'y ❶ from the Boss of Main Base.
3) Remove the Lever FL Arm Ass'y ❶ in the direction of arrow "C".

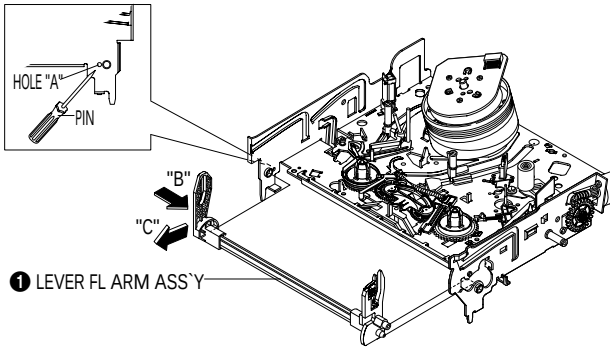


Fig. 4-13 Lever FL Arm Ass'y Removal

4-3-5 Gear Worm Wheel Removal

1) Remove the Gear Worm wheel ❶.

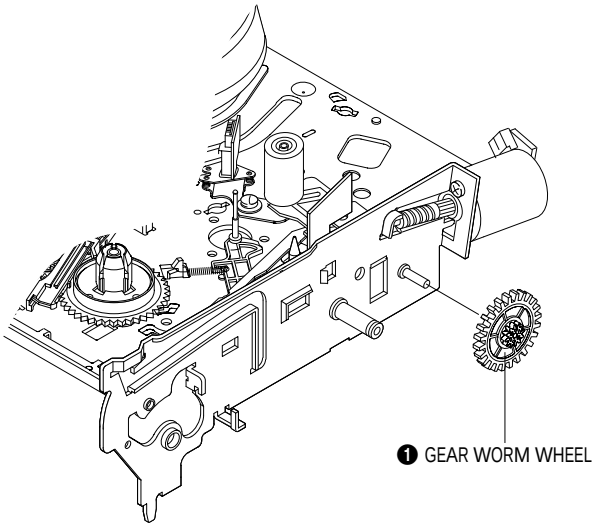


Fig. 4-14 Gear Worm Wheel Removal

4-3-6 Motor Loading Ass'y Removal

1) Remove the screw ❶.
2) Remove the Motor Loading Ass'y ❷.

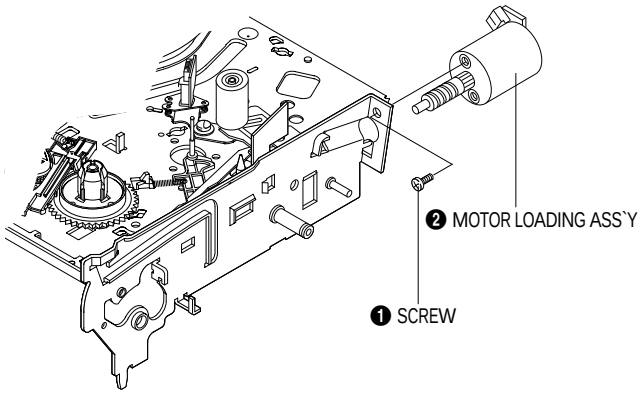


Fig. 4-15 Motor Loading Ass'y Removal

4-3-7 Bracket Gear, Gear Joint 2, 1 Removal

1) Remove the Screw ❶.
2) Remove the Bracket Gear ❷.
3) Remove the Gear Joint 2 ❸.
4) Remove the Gear Joint 1 ❹.

Assembly :
1) Be sure to align dot mark of Gear Joint 1 ❶ with dot mark of Gear Joint 2 ❷ as shown Fig 4-17. (Refer to Timing point1)
2) Confirm the Timing Point 2 of the Gear Joint 2 ❷ and Slider Cam ❸.

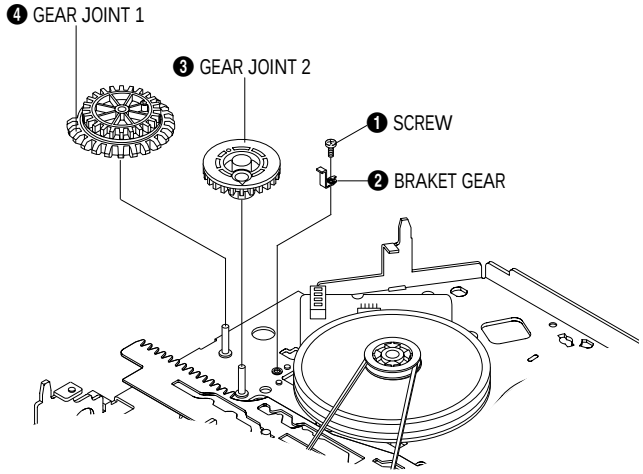


Fig. 4-16 Bracket Gear, Gear Joint 1,2 Removal

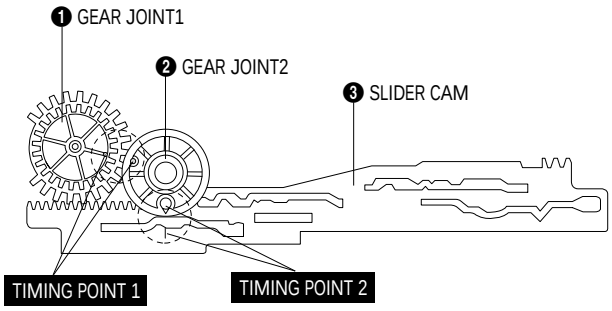


Fig. 4-17 Gear Joint 1,2 Assembly

4-3-8 Gear Loading Drive, Slider Cam, Lever Load S, T Ass'y Removal

1) Remove the Belt Pulley. (Refer to Fig. 4-35)
2) Remove the Gear Loading Drive ❶ after releasing Hook [A] in the direction arrow as shown in detail drawing.
3) Remove the Slider Cam ❷.
4) Remove the Lever Load ❸, Link Load ❺ & Lever Load ❹, Link Load ❻.

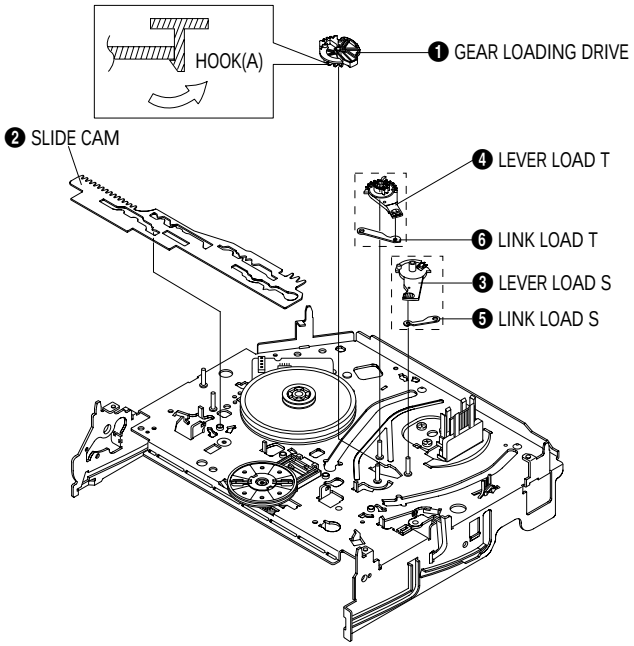


Fig. 4-18 Gear Loading Drive, Slider Cam, Lever T, S Load Ass'y Removal

4-3-9 Gear Loading Drive, Slider Cam, Lever Load S, T Ass'y Assembly

1) When reinstalling, be sure to align dot of Lever Load T Ass'y ❶ with dot of Lever Load S Ass'y ❷ as shown in drawing, (Refer to Timing Point 1).
2) Insert the Pin A,B,C,D into the Slider Cam ❸ hole,
3) Be sure to align dot of Lever Load T ❶ and dot of Gear Loading Drive ❹, (Refer to Timing Point 2).
4) Aline dot of Gear Loading drive ❹ with mark of Slider Cam ❸ as shown in drawing (Refer to Timing Point 3).

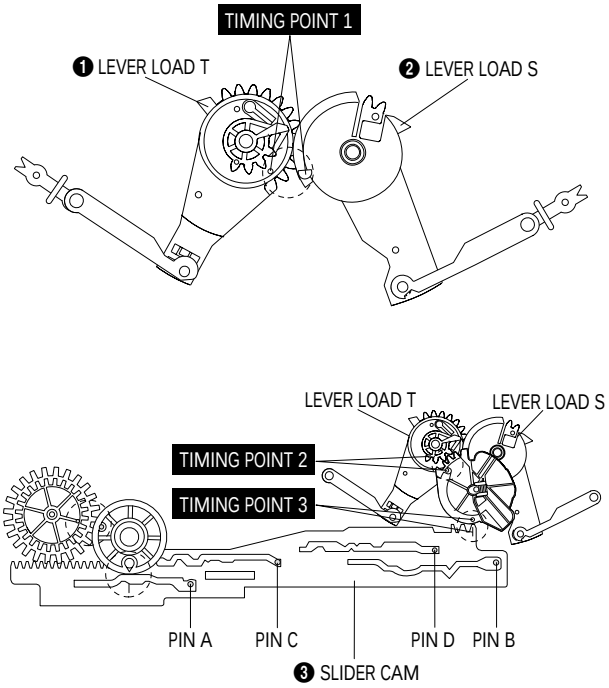


Fig. 4-19 Gear Loading Drive, Slider Cam, Lever Load S, T Ass'y Assembly

4-3-10 Lever Pinch Drive, Lever Tension Drive Removal

1) Remove the Lever Pinch Drive ❶, Lever Tension Drive ❷.

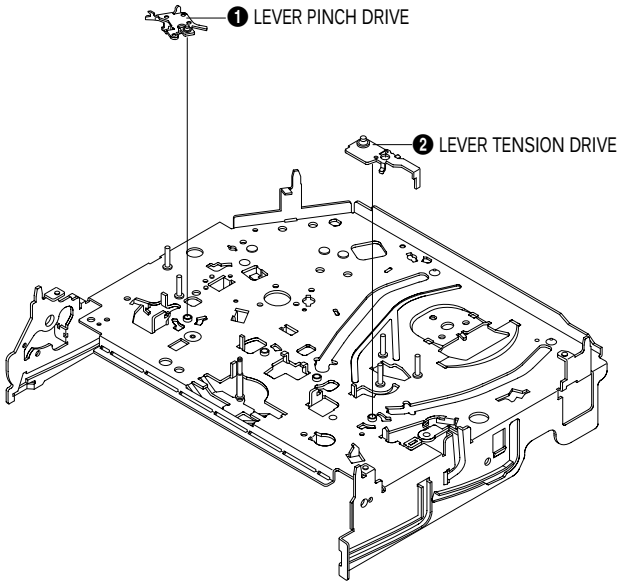


Fig. 4-20 Lever Pinch Drive, Lever Tension Drive Removal

4-3-11 Lever Tension Ass'y, Band Brake Ass'y Removal

1) Remove the Lever Brake S Ass'y (Refer to Fig 4-22).
2) Remove the Spring Tension Lever ❶.
3) Rotate stopper of Main Base in the direction of arrow "A".
4) Lift the Lever Tension Ass'y ❷ & Band brake Ass'y ❸.

Note :
1) When replacing the Lever Tension Ass'y ❷, be sure to apply Grease on the post,
2) Take care not to touch stain on the felt side, and not to be folder and broken Band brake Ass'y
3) After Lever Tension Ass'y seated, Rotate stopper of Main Base to the Mark[B].

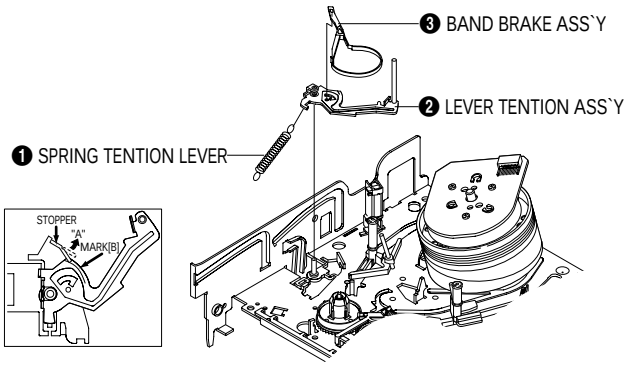


Fig. 4-21 Lever Tension Ass'y, Band Brake Ass'y Removal

4-3-12 Lever Brake S, T Ass'y Removal

1) Release the Hook [A] and the Hook [B], [C] in the direction of arrow as shown in Fig 4-22.
2) Lift the Lever S, T Brake Ass'y ❶, ❷ with spring brake ❸.

Assembly :
1)Assembly the Lever S Brake Ass'y ❶ on the Main Base.
2)Assembly the Lever T Brake Ass'y ❷ with spring brake ❸.

Note : Take extreme care not to be folded and transformed Spring Brake at removing or reinstalling.

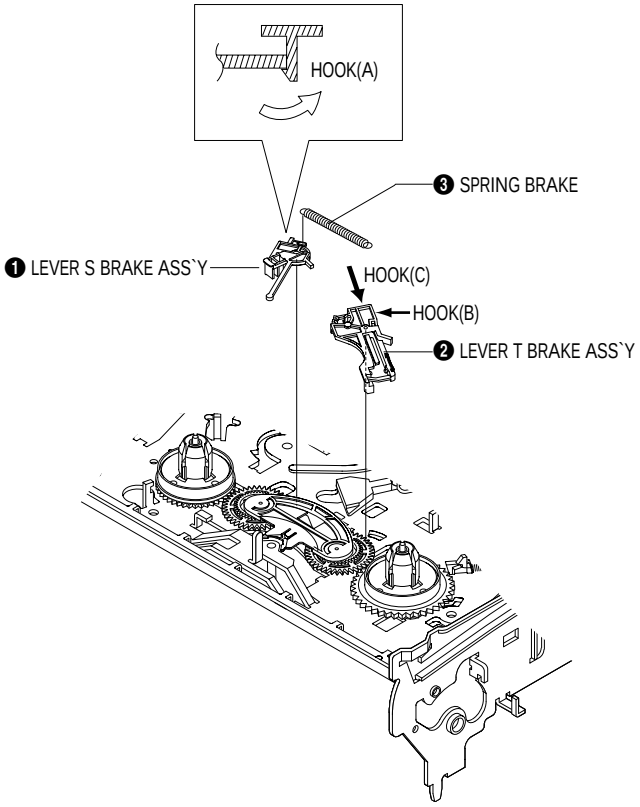


Fig. 4-22 Lever Brake S, T Ass'y Removal

4-3-13 Gear Idle Ass'y Removal

1) Push the Lever Idle ❶ in the direction of arrow "A", "B".
2) Lift the Lever Idle ❶.

Assembly :
1) Apply oil in two Bosses of Lever Idle ❶.
2) Assemble the Gear Idle ❷ with the Lever Idle ❶.

Note : When replacing the Gear Idle ❷, be sure to add oil in the boss of Lever Idle ❶.

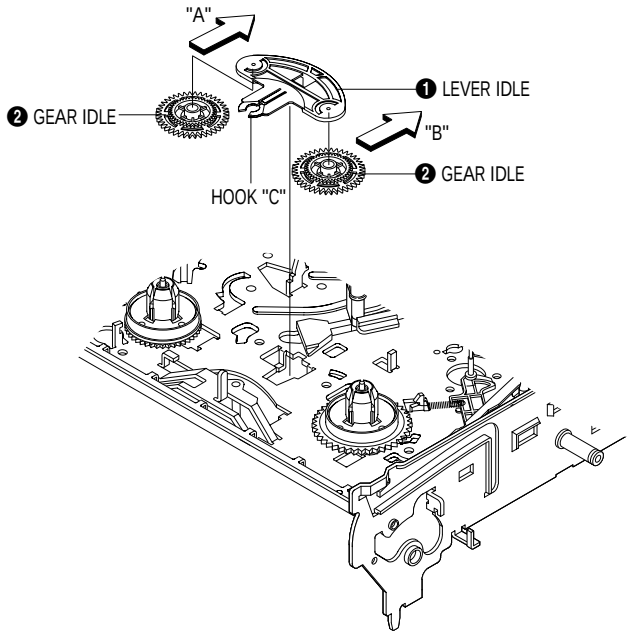


Fig. 4-23 Gear Idle Ass'y Removal

4-3-14 Disk S, T Reel Removal

1) Lift the Disk S, T Reel ❶, ❷.

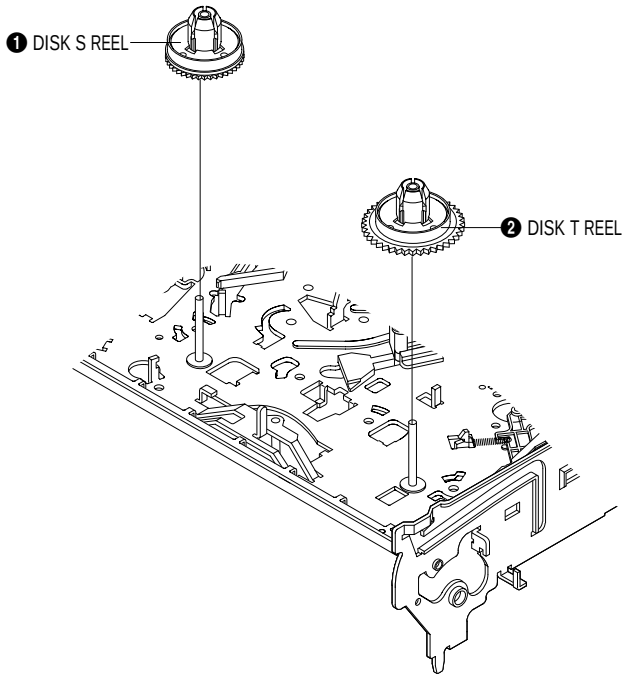


Fig. 4-24 Disk S, T Reel Removal

4-3-15 Holder Clutch Ass'y Removal

1) Remove the Washer Slit ❶.
2) Lift the Holder Clutch Ass'y ❷.

Note : When you reinstall Holder Clutch Ass'y
1) Check the condition of spring as shown in detail A.
2) Don't push Holder Clutch Ass'y down with excessive force Just insert Holder Clutch Ass'y into post center with dead force and Rotate it smoothly.
Be sure to confirm that spring is in the slit of Gear Center Ass'y as shown in detail B.

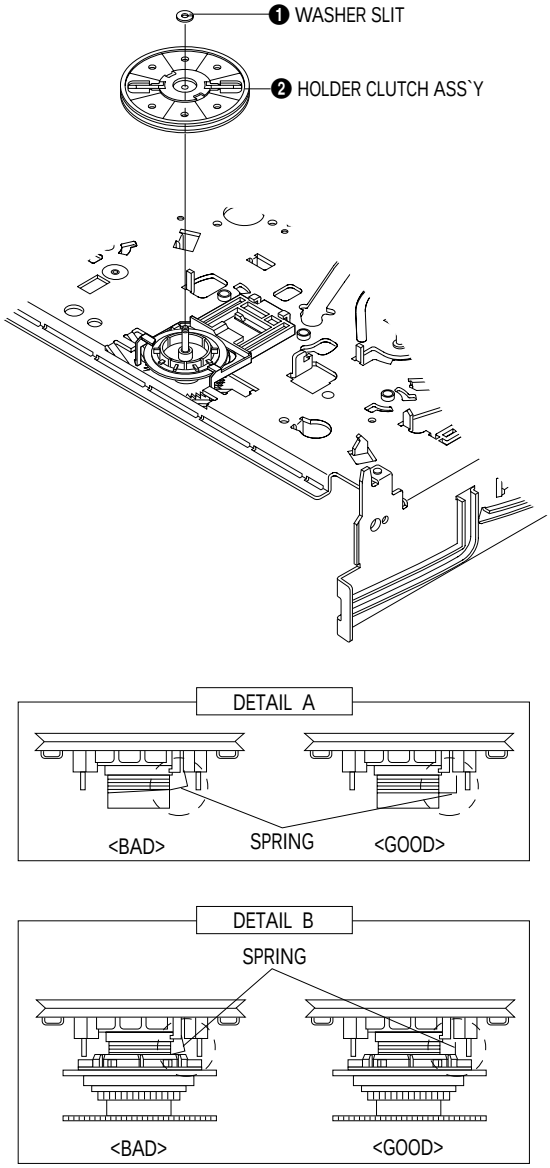


Fig. 4-25 Holder Clutch Ass'y Removal

4-3-16 Lever Up Down Ass'y, Gear Center Ass'y Removal

1) Remove the 2 hooks in the direction of arrow as shown Fig. 4-26 and lift the Lever Up Down Ass'y ❶.
2) Lift the Gear Center Ass'y ❷.

Assembly :
1) Insert the Lever Up Down Ass'y ❶ in the rectangular holes on Main Base as shown in Fig 4-27.
2) Lift the Lever Up Down Ass'y ❶ about 35 degree.(Refer to Fig 4-27)
3) Insert Ring of the Gear Center Ass'y ❷ in the Guide of the Lever Up Down Ass'y ❶.
4) Insert the Gear Center Ass'y ❷ in the post on Main Base.
5) Push down the Lever Up Down Ass'y ❶ for locking of the Hook.

Note :
1) Take care not to separate and sentence does not mark sense.
2) Be sure to confirm that Ring of the Gear Center Ass'y ❷ is in the Guide of the Lever Up Down Ass'y ❶ after finishing assembly of Lever Up Down Ass'y ❶ and Gear Center Ass'y ❷.

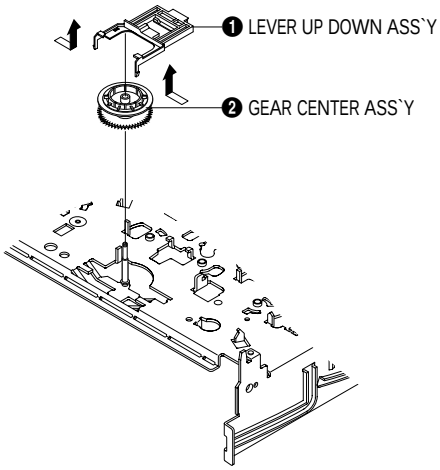


Fig. 4-26 Lever Up Down Ass'y Removal

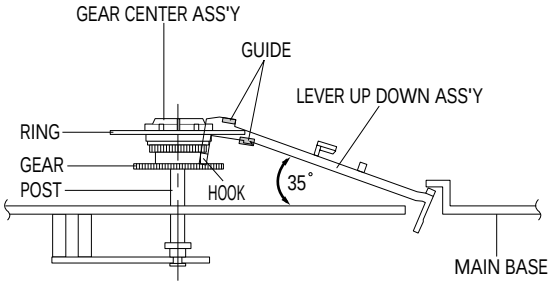


Fig. 4-27 Lever Up Down Ass'y Removal

4-3-17 Guide Cassette Door Removal

1) Lift the Hook [A].
2) Rotate the Guide Cassette Door ❶ in the direction of arrow.

Note : After reinstalling the Guide Cassette Door ❶ sure the Hook [A].

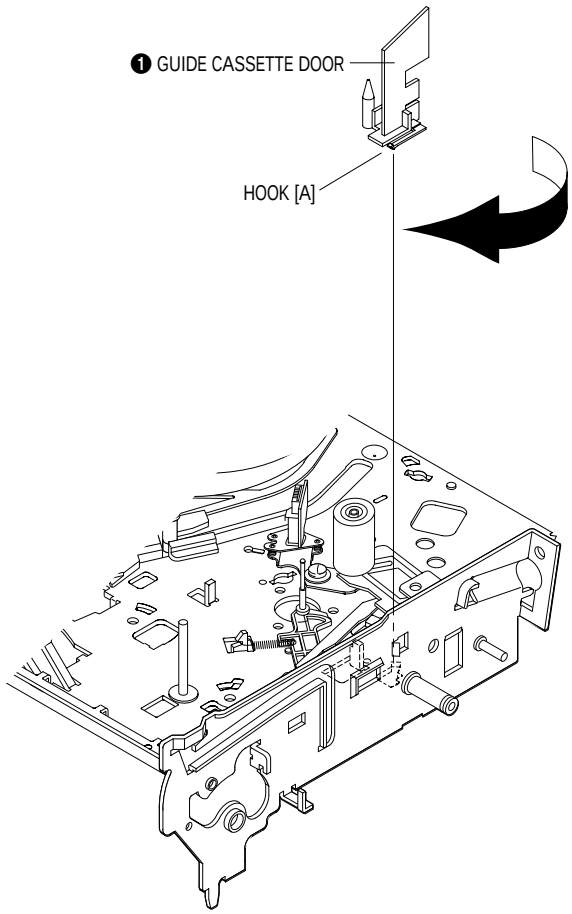


Fig. 4-28 Guide Cassette Door Removal

4-3-18 Lever Unit Pinch Ass'y, Plate Joint, Spring Pinch Drive Removal

1) Lift the Unit Pinch Ass'y ❶.
2) Remove the Plate Joint ❷ from Lever Pinch Drive.
3) Remove the Spring Pinch Drive ❸.

Note :
1) Take extreme care not to touch the grease on the Roller Pinch.
2) When reinstalling, be sure to apply grease on the post pinch roller.

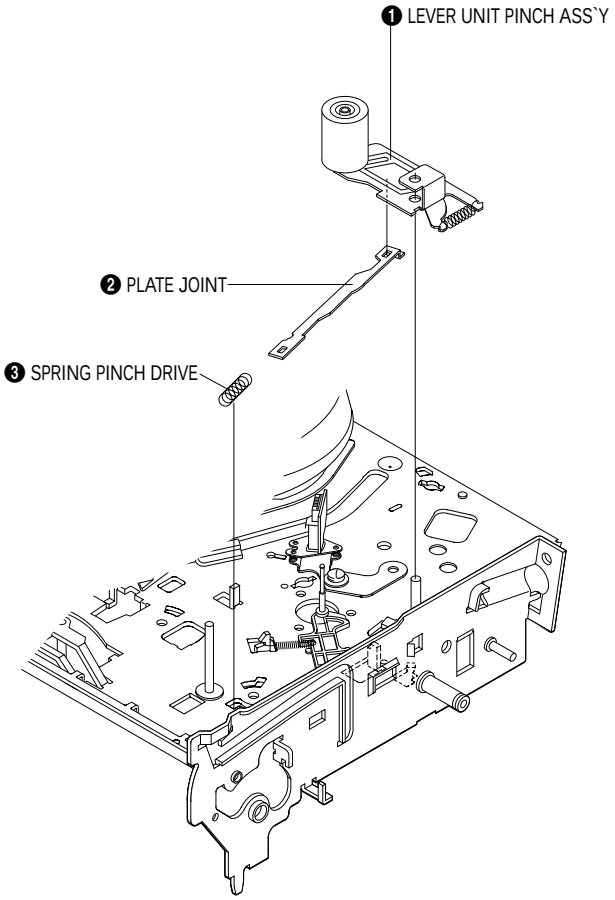


Fig. 4-29 Lever Unit Pinch Ass'y, Plate Joint, Spring Pinch Drive Removal

4-3-19 Lever #9 Guide Ass'y Removal

1) Remove the Spring #9 Guide ❶.
2) Lift the Spring #9 Guide Ass'y ❷ in the direction of arrow "A".

Note :
1) Take extreme care not to get grease on the tape Guide Post.
2) After reinstalling, check the bottom side of the Post #9 Guide to the top side of Main Base.

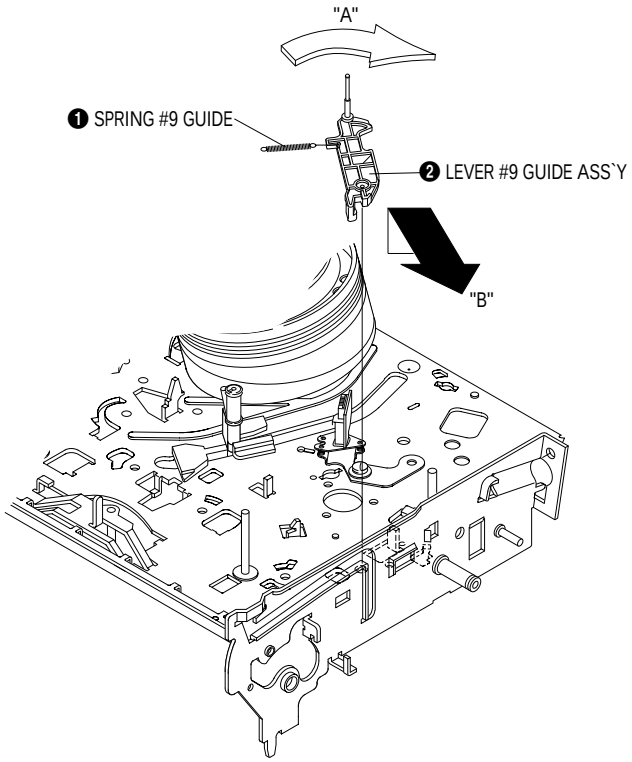


Fig. 4-30 Lever #9 Guide Ass'y Removal

4-3-20 FE Head Removal

1) Remove the screw ❶.
2) Lift the FE Head ❷.

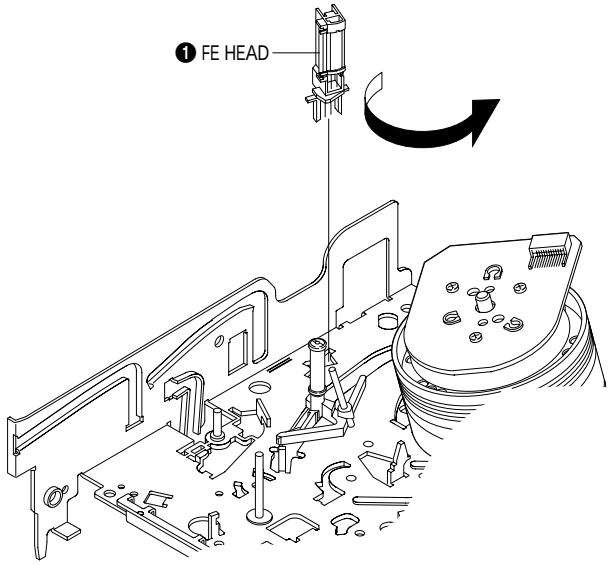


Fig. 4-31 FE Head Removal

4-3-21 ACE Head Removal

1) Pull out the FPC from connector of ACE Head Ass'y ❷.
2) Remove the screw ❶.
3) Lift the ACE Head Ass'y ❷.

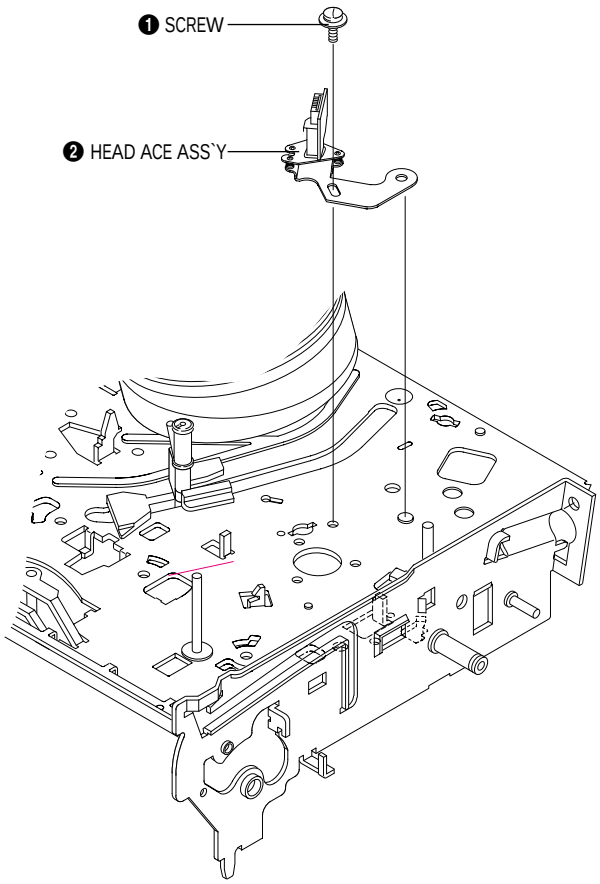


Fig. 4-32 ACE Head Removal

4-3-22 Slider S, T Ass'y Removal

1) Move the Slider S, T Ass'y ❶, ❷ to slot, and then lift it to remove. (Refer to arrow)

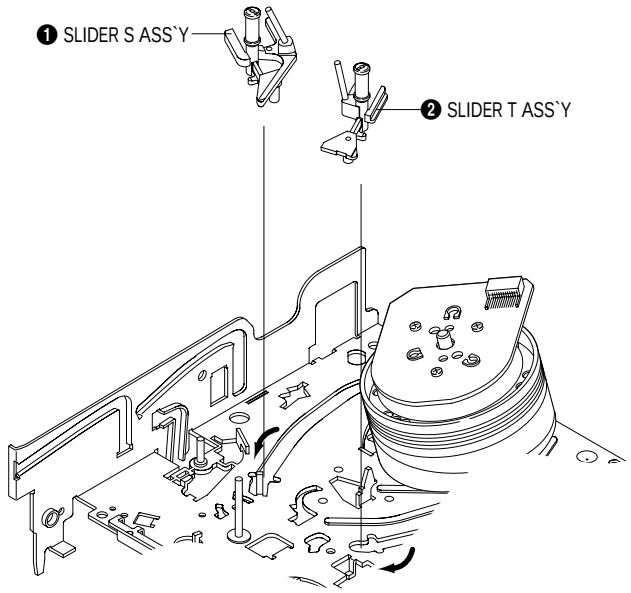


Fig. 4-33 Slider S, T Ass'y Removal

4-3-23 Plate Ground Deck, Cylinder Ass'y Removal

1) Remove the 3 Screws ❶.
2) Lift the Plate Ground Deck ❷.
3) Lift the Cylinder Ass'y ❸.

Assembly :
1) Match the 3 holes in the bottom of Cylinder ass'y ❸ to the 3 holes of Main Base as attending not to drop or knock the Cylinder ass'y ❸.
2) Tighten the 1 Screw ❶.
3) Match the Plate Ground Deck ❷ to the Hole of Base Main.
4) Tighten the other 2 Screws ❶.

Note :
1) Take care not to touch the Cylinder Ass'y ❸ and the tape guide post at reinstalling.
2) When reinstalling, Don't push down too much on Screw Driver.

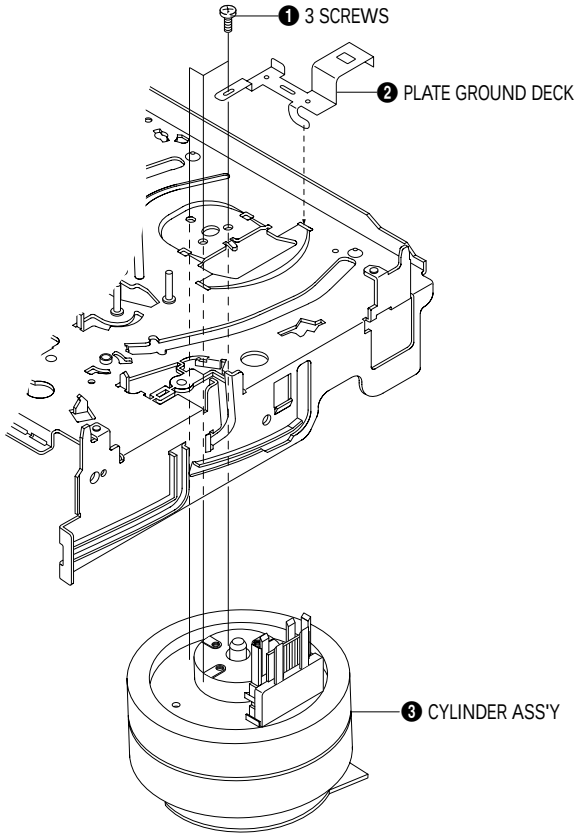


Fig. 4-34 Plate Ground Deck, Cylinder Ass'y Removal

4-3-24 Belt Pulley Removal

1) Remove the Belt Pulley ❶.

Note : Take extreme care not to get grease on Belt Pulley ❶ at assembling or reassembling.

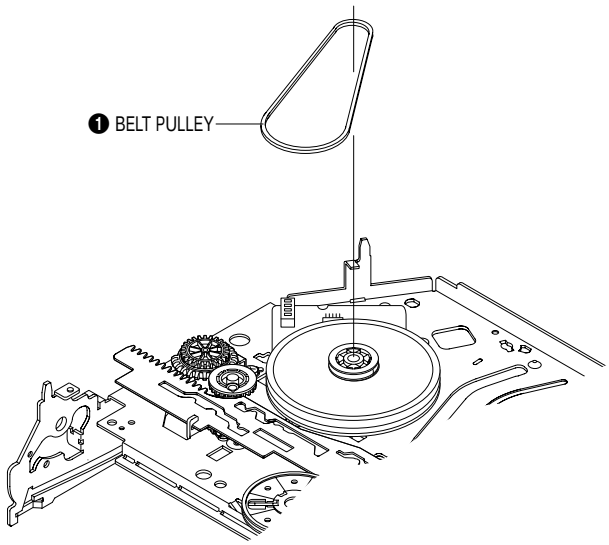


Fig. 4-35 Belt Pulley Removal

4-3-25 Level Head Cleaner Ass'y Removal (Optional)

1) Release the Hook ❶.
2) Lift the Lever Head Cleaner Ass'y ❷.

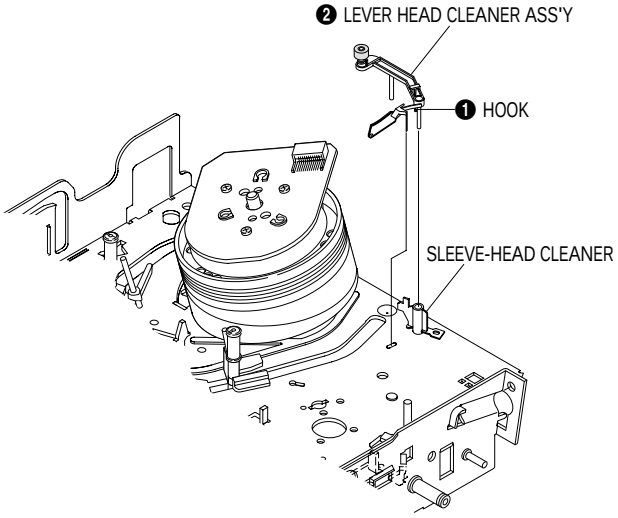


Fig. 4-36 Level Head Cleaner Ass'y Removal

4-3-26 Damper Capstan, Motor Capstan Ass'y Removal

1) Remove the Damper Capstan ❶ in the direction of arrow.
2) Remove the 3 Screws ❷.
3) Remove the Motor Capstan Ass'y ❸.

Assembly :
1) Match the 3 holes of Motor Capstan Ass'y ❸ to the 3 holes of Main Base. Be careful not to drop or knock the Motor Capstan Ass'y ❸.
2) Tighten the 3 Screws ❷ in the direction of arrow as shown detail drawing.
3) Assemble the Damper Capstan ❶.

Note : After tightening screws, check if there is gap between the head of screws and the top side of Main Base. There should have no gap between the head of screws and the top side of Main Base.
After reinstalling, adjusting the tape transport system again.

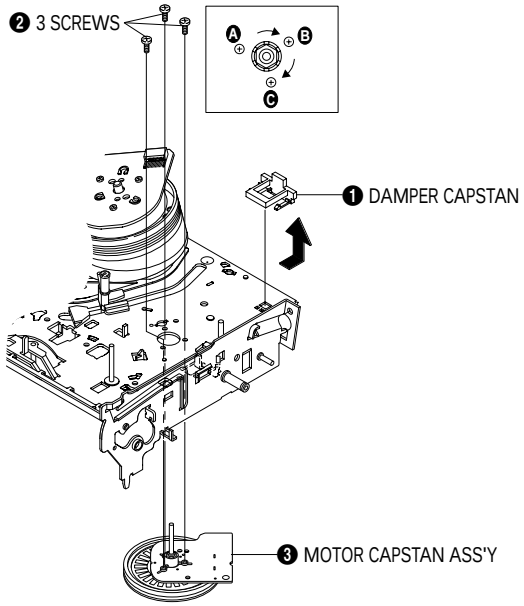


Fig. 4-37 Damper Capstan,Motor Capstan Ass'y Removal

4-3-27 How to Eject the Cassette Tape (If the unit does not operate on condition that is inserted into housing ass'y)

1) Turn the Gear worm ❶ clockwise with screw driver.(Refer to arrow)
(Other method : Remove the Screw of Motor Load Ass'y, Separate the Motor Load Ass'y)

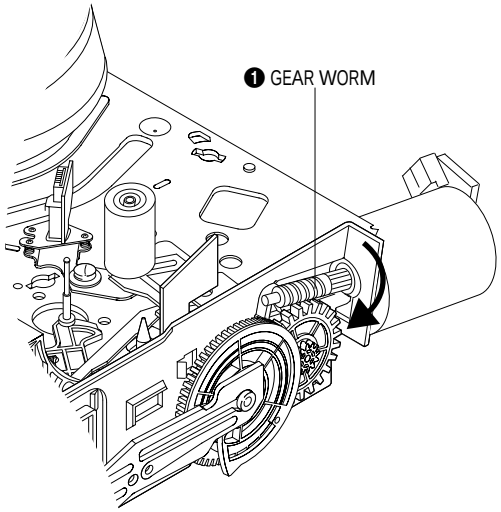


Fig. 4-38

2) When Slider S,T are approched in the position of unloading, rotate holder Clutch counterclockwise after inserting screw driver in the hole of frame's bottom in order to wind the unwinded tape. (Refer to Fig. 4-39)
(If you rotate Gear Worm ❶ continuously when tape is in state of unwinding, you may cause a tape contamination by grease and tape damage. Be sure to wind the unwinded tape in the state of set horizontly.)
3) Rotate Gear Worm ❶ clockwise using screw driver again up to the state of eject mode and then pick out the tape.(Refer to Fig. 4-38)

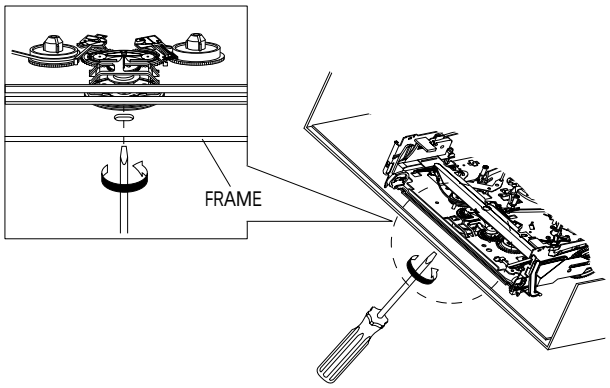


Fig. 4-39

4-4 The table of cleaning, Lubrication and replacement time about principal parts

1) The replacement time of parts is not life of parts.
2) The table 4-1 is that the VCR Set is in normal condition (normal temperature, normal humidity).
   The checking period may be changed owing to the condition of use, runtime and environmental conditions.
3) Life of the Cylinder Ass'y is depend on the condition of use.
4) See exploded view for location of each parts.

<Table 4-1>

*	Parts Name	Checking Period										Remark
		500	1000	1500	2000	2500	3000	3500	4000	4500	5000	
TAPE PATH SYSTEM	POST TENSION	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	- To clean the parts, use patch and alcohol (solvent). - After cleaning, use the video tape after alcohol is gone away completely. - We recommend to use oil [EP-50] or solvent. - One or two drops of oil should be applied after cleaning with alcohol.
	SLANT POST S, T	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	
	#8 GUIDE SHAFT	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	
	CAPSTAN SHAFT	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	
	#9 GUIDE POST	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	
	#3 GUIDE POST	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	
	GUIDE ROLLER S, T	Δ	Δ	Δ	O	O	O	O	O	O	O	
	CYLINDER ASS'Y	Δ	O	O	O	O	O	O	O	O	O	
	FE HEAD	Δ	Δ	Δ	O	O	O	O	O	O	O	
	ACE HEAD	Δ	O	O	O	O	O	O	O	O	O	
	PINCH ROLLER	Δ	O	O	O	O	O	O	O	O	O	
	POST REEL S, T		◆		◆		◆		◆		◆	- Periodic time of applying oil (Apply oil after cleaning) - The excessive applying oil may be the cause of malfunction.
	SLEEVE TENSION		◆		◆		◆		◆		◆	
	POST CENTER		◆		◆		◆		◆		◆	
	LEVER IDLE BOSS (2Point)		◆		◆		◆		◆		◆	
DRIVING SYSTEM	CAPSTAN MOTOR PULLEY	Δ	Δ	Δ	Δ	Δ	O	O	O	O	O	
	BELT PULLEY				O	O	O	O	O	O	O	
	HOLDER CLUTCH ASS'Y	Δ	O	O	O	O	O	O	O	O	O	
	GEAR CENTER ASS'Y		O	O	O	O	O	O	O	O	O	
	GEAR IDLE (2Point)		O	O	O	O	O	O	O	O	O	
	LOADING MOTOR		O	O	O	O	O	O	O	O	O	
BRAKE SYSTEM	BAND BRAKE ASS'Y		O	O	O	O	O	O	O	O	O	
	BRAKE T ASS'Y		O	O	O	O	O	O	O	O	O	

Δ : Cleaning O : Check and replacement in necessary ◆ : Add Oil

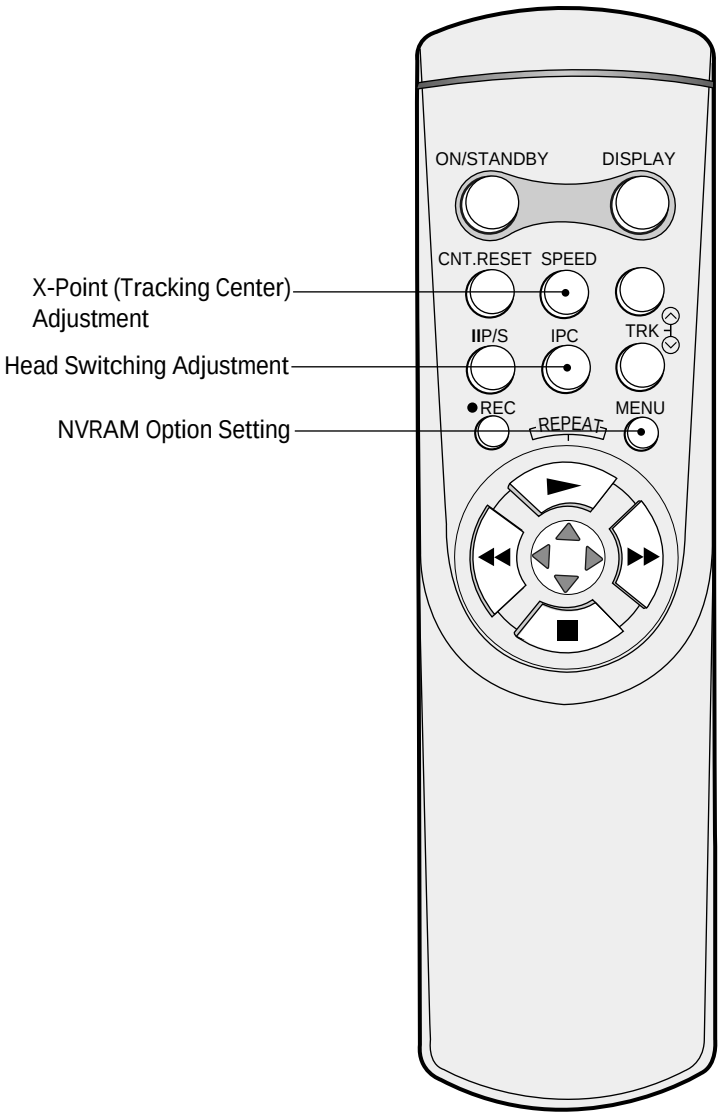
MEMO

5. Alignment and Adjustment

5-1 Reference

1) X-Point (Tracking center) adjustment, “Head switching adjustment” and “NVRAM option setting” can be adjusted with remote control.
2) When replacing the Micom (IC601) and NVRAM (IC605 ; EEPROM) be sure to adjust the “Head switching adjustment” and “NVRAM option setting”.
3) When replacing the cylinder ass’y, be sure to adjust the “X-Point” and “Head switching adjustment”.
4) Remote control used for same chassis as a accessory is available for all adjustments.
5) How to adjustment.
   - Press the “SW703” button on Main PCB to set the adjustment mode.
   - If the corresponding adjustment button is pressed, the adjustment is performed automatically.
   - If the adjustment is completed, be sure to turn the power off.

5-1-1 Location of adjustment button of remote control



Remote Control for adjusment is not supplied as a Servcie Jig

Fig. 5-1

5-1-2 SW703 location for adjustment mode setting

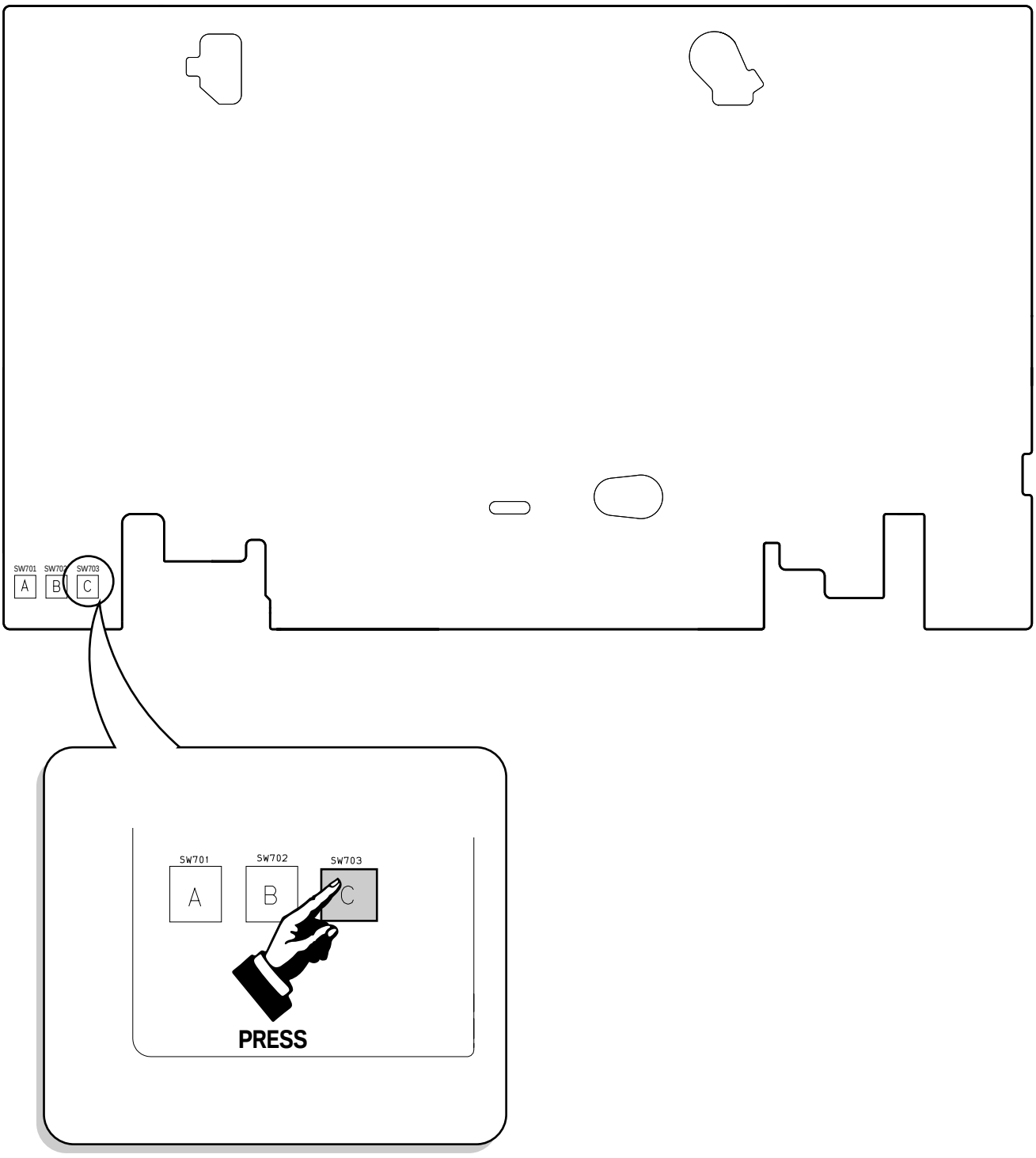


Fig. 5-2 Main PCB (Top View)

5-2 Mechanical Adjustment

5-2-1 Tape Transport System and Adjustment Locations

The tape transport system has been adjusted precisely in the factory. Alignment is not necessary except for the following :
1) Noise observed on the screen.
2) Tape damage.
3) Parts replacement in the tape transport system.

Lower flange height of tape guide is used as the reference for the transport adjustment.
To maintain the height of the tape guide and prevent damage, do not apply excessive force onto the main base.

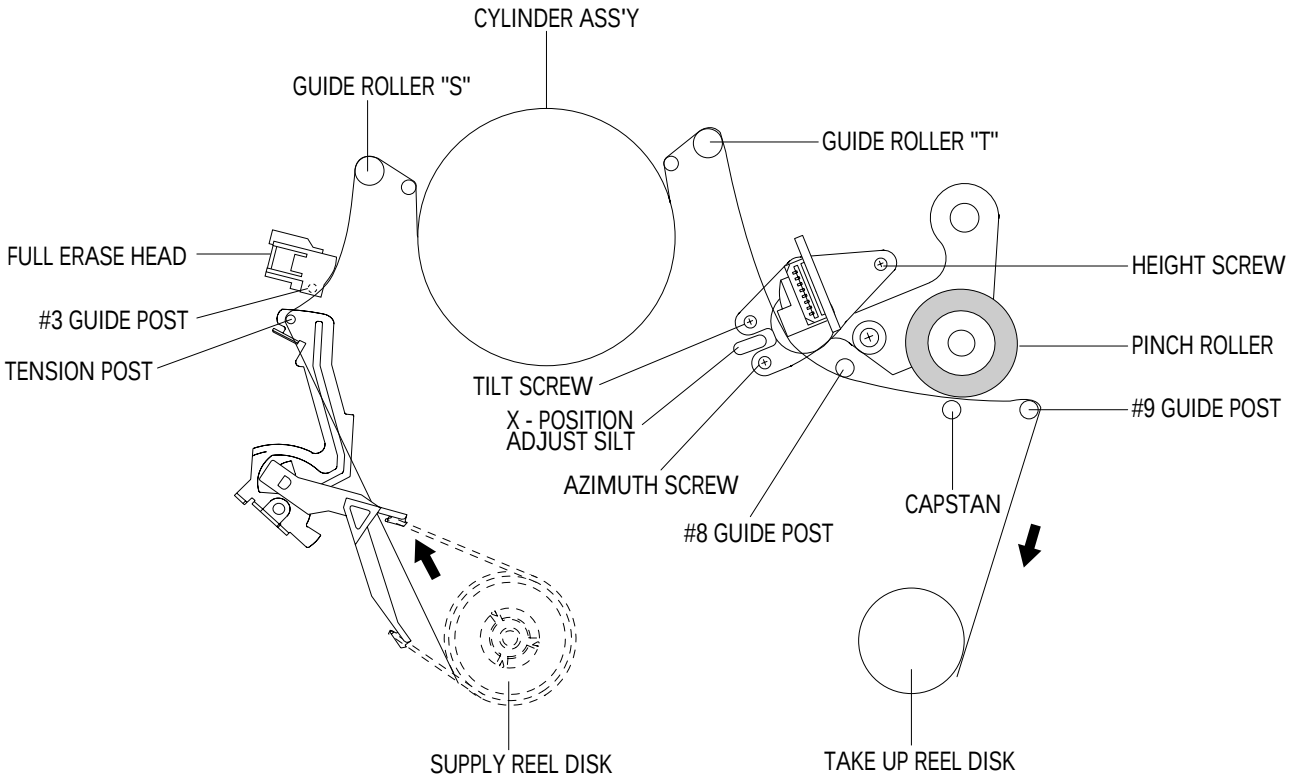


Fig. 5-3 Location of Tape Transport Adjustment

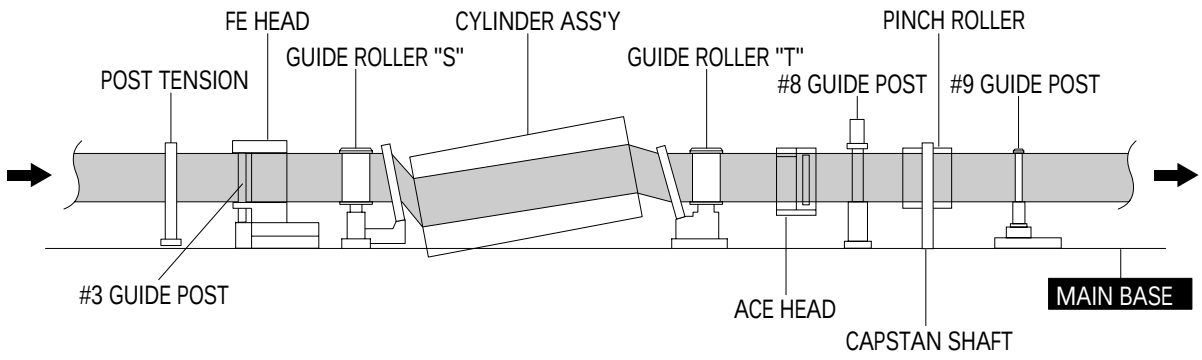


Fig. 5-4 Tape Travel Diagram

5-2-2 Tape Transport System Adjustment

When parts are replaced, perform the required adjustments by referring to precedures for the tape transport system. If there are any changes to the tape path, first run a T-120 tape and make sure excessive tape wrinkle does not occur at the tape guides.

1) If tape wrinkle is observed at the guide roller S, T, turn the guide roller S, T until wrinkle disappears.
2) If the tape wrinkle is still observed at the tape guide, perform the tilt adjustment of the ACE head.

(1) ACE Head Assembly Adjustment

Test point :	TP601 (Control Pulse)
	TP602 (H'D S/W -Trigger)
	TP301 (Envelope)
	TP302 (Audio output)
	TP303 (Video output)
Test tape :	ST-N1
	BLANK TAPE : T-160

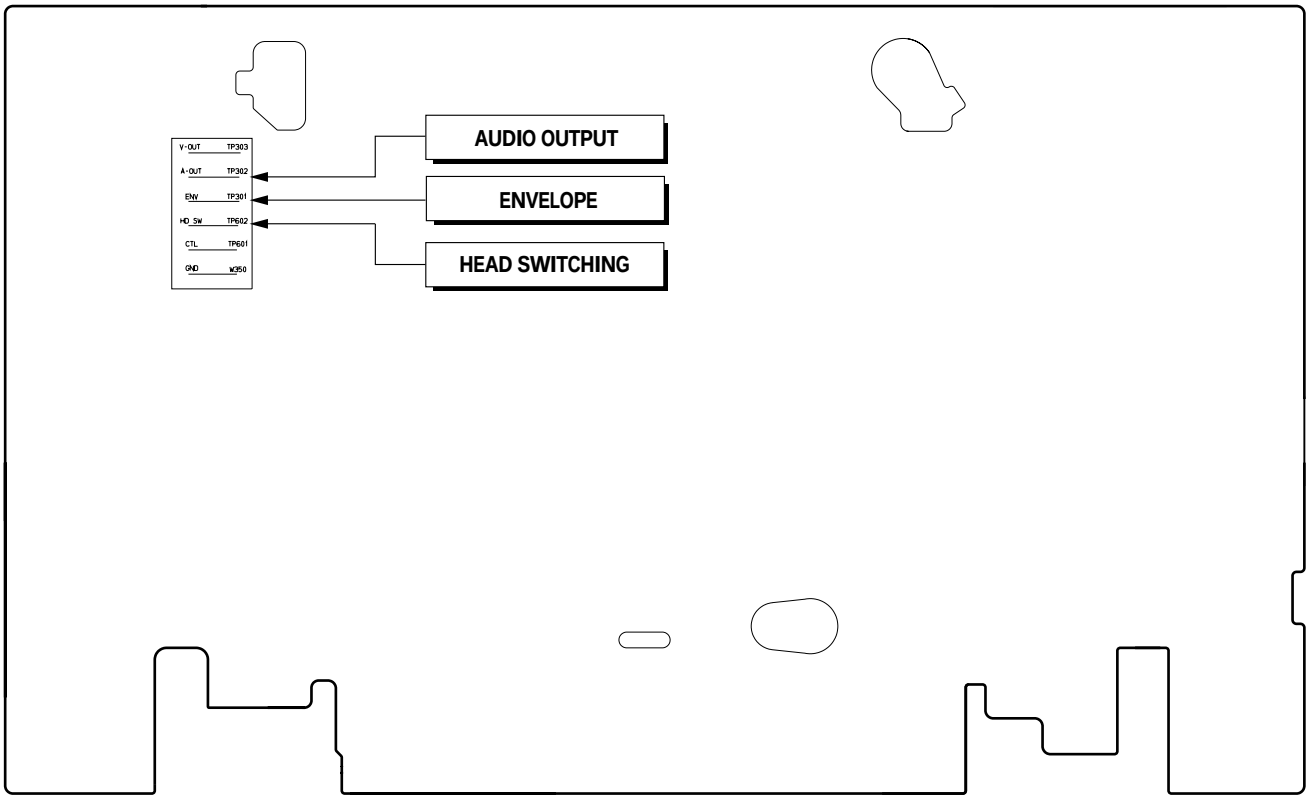


Fig. 5-5 Location of Test point (Main PCB-Top View)

a. ACE HEAD HEIGHT ADJUSTMENT

1) Run the alignment tape (Color bar) in the playback mode.
2) Observe surface of the audio head using a dental mirror.
3) Turn screw (C) clockwise or counterclockwise until the gap of lower tape edge and the lower edge of the control head is about 0.25mm.
(Refer to Fig. 5-6 and 5-7)

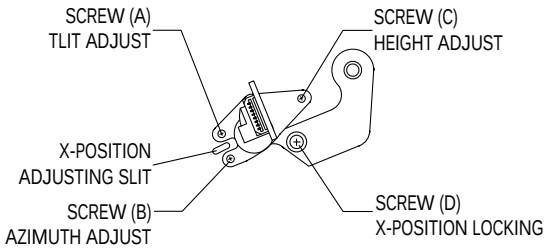


Fig. 5-6 Location of ACE Head Adjustment Screw

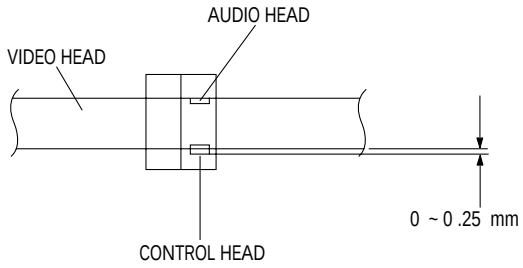


Fig. 5-7 ACE Head Height Adjustment

b. ACE HEAD TILT ADJUSTMENT

1) Playback a blank tape and observe the position of the tape at the lower flange of tape guide.
2) Confirm that there is no curl or wrinkle at the lower flange of tape guide as shown in Fig. 5-8 (B).
3) If a curl or wrinkle of the tape occurrs, slightly turn the screw (A) tilt adjust on the ACE head ass'y.
4) Reconfirm the ACE head height.

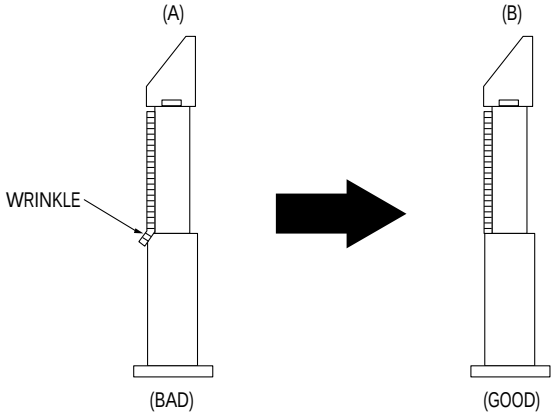


Fig. 5-8 Tape Guide Check

c. AUDIO AZIMUTH ADJUSTMENT

1) Load alignment tape (Mono scope) and playback the 6KHz signal.
2) Connect channel-1 scope probe to audio output test point (TP302).
3) Adjust screw (B) to achieve maximum audio level. (See Fig. 5-6)

d. ACE HEAD POSITION (X-POINT) ADJUSTMENT

1) Playback the alignment tape (Color bar).
2) Press the "SW703" button on Main PCB to set the adjustment mode. (See Fig. 5-2)
3) Press the "5" button of remote control then adjustment is operated automatically. (See Fig. 5-1)
4) Connect the CH-1 probe to TP303 (Envelope) the CH-2 probe to TP601 (H'D switching pulse) and then trigger to CH-1.
5) Insert the (-) driver into the X-Point adjustment hole and adjust it so that envelope waveform is maximum.
6) Turn the Power off.

(2) Linearity adjustment (Guide roller S, T adjustment)

1) Playback the Mono Scope alignment tape (SP mode).
2) Observe the video envelope signal on an oscilloscope (triggered by the video switching pulse).
3) Make sure the video envelope waveform (at its minimum) meets the specification shown in Fig. 5-9.
   If it does not, adjust as follows :

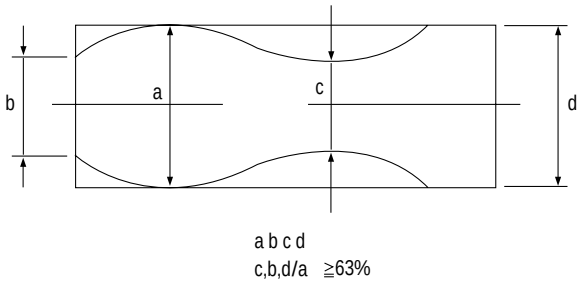


Fig. 5-9 Envelope Waveform Adjustment

Note :
a=Maximum output of the video RF envelope.
b=Minimum output of the video RF envelope at the entrance side.
c=Minimum output of the video RF envelope at the center point.
d=Maximum output of the video RF envelope at the exit side.

4) If the section A in Fig. 5-10 does not meet the specification, adjust the guide roller S up or down.
5) If the section B in Fig. 5-10 does not meet the specification, adjust the guide roller T up or down.

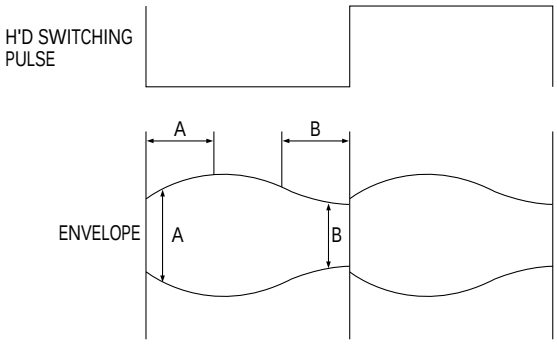


Fig. 5-10 Adjustment Points

6) Play back the Mono Scope alignment tape (SP mode).
7) Connect an oscilloscope CH-1 to the Envelope and CH-2 to the H'D SW Pulse for triggering.
8) Turn the guide roller heads with a flat head (▬) driver to obtain a flat video RF envelope as shown in Fig. 5-11.

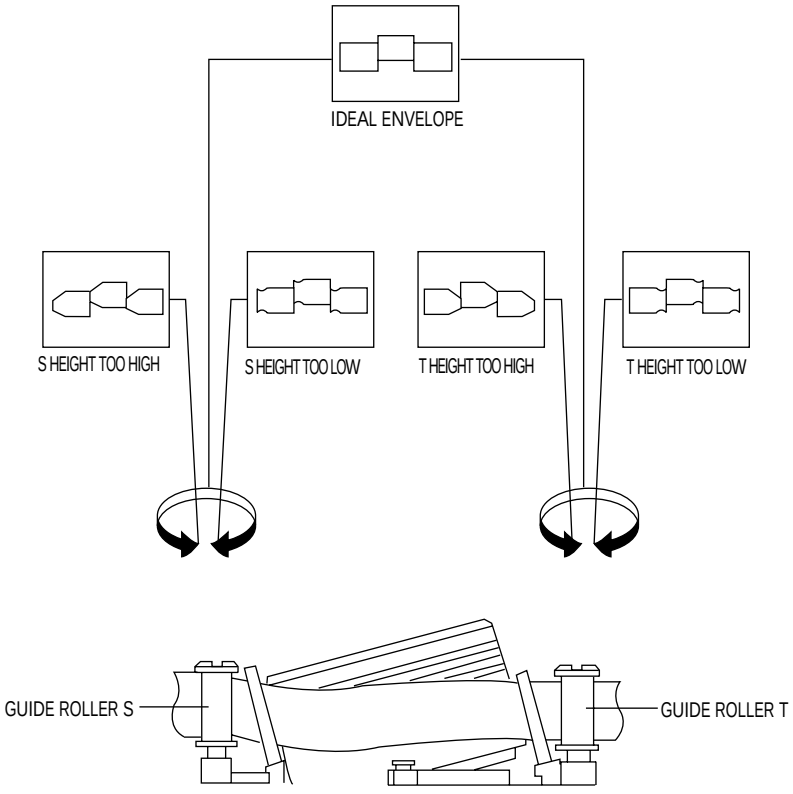


Fig. 5-11 Guide Roller S, T Height Adjustment

(3) Check Transitional Operation from RPS to Play

Check transition from RPS mode to play mode :
Using a pre-recorded SP tape, make sure the entry side of envelope comes to an appropriate steady state within 3 seconds (as shown in Fig. 5-12).
If the envelope waveform does not reach specified peak-to peak amplitude within 3 seconds, adjust as follows :

1) Make sure there is no gap between the supply roller lower flange and the tape.
   If there is a gap, adjust the supply guide roller again.
2) Change operation mode from the RPS to the play mode (again) and make sure the entry side of envelope rises within 3 second.

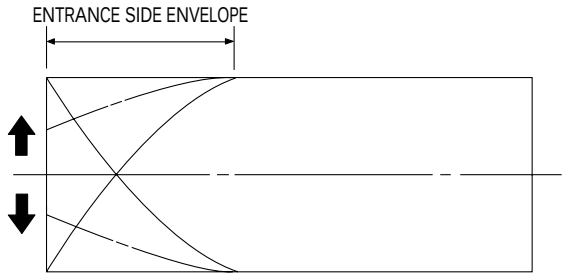


Fig. 5-12 Video Envelope Rising when Operation mode Changes from RPS to Play Mode

(4) Envelope Check

1) Make recordings on T-120 (E-120) and T-160 (E-180) tape.
   Make sure the playback output envelope meets the specification as shown in Fig. 5-13.
2) Play back a self recorded tape (recording made on the unit using with T-120 (E-120).
   The video envelope should meet the specification as shown in Fig. 5-13.
   In SP mode, (A) should equal (B).
   If the head gap is wide, upper cylinder should be checked.

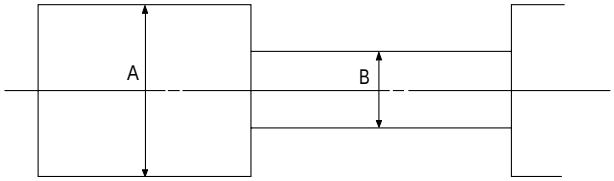


Fig. 5-13 Envelope Output and Output Level

(5) Tape Wrinkle Check

1) Run the T-160 (E-180) tape in the playback, FPS, RPS and Pause modes and observe tape wrinkle at each guide.
2) If excessive tape wrinkle is observed, perform the following adjustments in Playback mode :

- ◆ Tape wrinkle at the guide roller S, T section : Linearity adjustment.
- ◆ Tape wrinkle at tape guide flange : ACE head assembly coarse adjustment.

5-2-3 Reel Torue

1) The rotation of the capstan motor causes the Holder Clutch Ass'y to rotate through the Belt Pulley.
2) The spring wrap PLAY / REV of holder clutch ass'y drives the disk reel S, T through gear idle by rotation of gear center ass'y.
3) Brake is operated by slider cam at FF / REW mode.
4) Transportation of accurate driving force is done by gears. (Gear Center Ass'y)

Note : If the spec. does not meet the followings specifications, replace the holder clutch ass'y and then recheck.

<Table 5-1>

MODE	TORQUE g/cm	GAUGE
PB	42 ± 11	Cassette Torquemeter
RPS	145 ± 30	Cassette Torquemeter

5-3 Head Switching Point Adjustment

1) Playback the alignment tape.
2) Press the “SW703” button on Main PCB with pincers to set the adjustment mode. (See Fig. 5-2)
3) Press the “SP/LP” button of remote control then adjustment is operated automatically. (See Fig. 5-1)
4) Turn the Power off.

5-4 NVRAM Option Setting

1) NVRAM Option is adjusted at production line basically.
2) In case Micom (IC601) and NVRAM (IC605 ; EEPROM) is replaced, be sure to set the corresponding ooption number of the repaired model. (If the option is not set, the unit is not operated.)

1) Press the “SW703” button on Main PCB to set the adjustment mode. (See Fig. 5-2)
2) Press the “MENU” button on the remote control about 5 seconds then option setting display is appeared. (See Fig. 5-14)
3) Select the option number (See Table 5-2) of corresponding model with “CURSOR” button on the remote control.
4) If selecting the option number is completed, press the “OK” button of remote control. (If “OK” button is pressed, the selected number is changes reversed color. ; See Fig. 5-14)
5) Press the “MENU” button of remote control again to store the option number. (“PLEASE WAIT” is displayed for a second as shown Fig. 5-15 and this setting is completed.)
6) Turn the Power off.

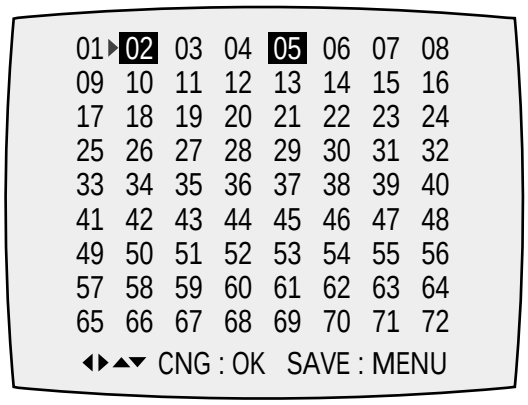


Fig. 5-14

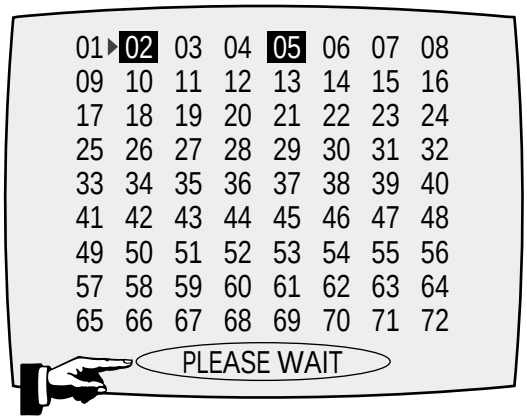


Fig. 5-15

<Table 5-2>

MODEL	OPTION NUMBER
VCP-C8	10, 20, 22, 33, 35, 37, 42, 45, 49, 53, 57, 61, 63

6. Exploded View

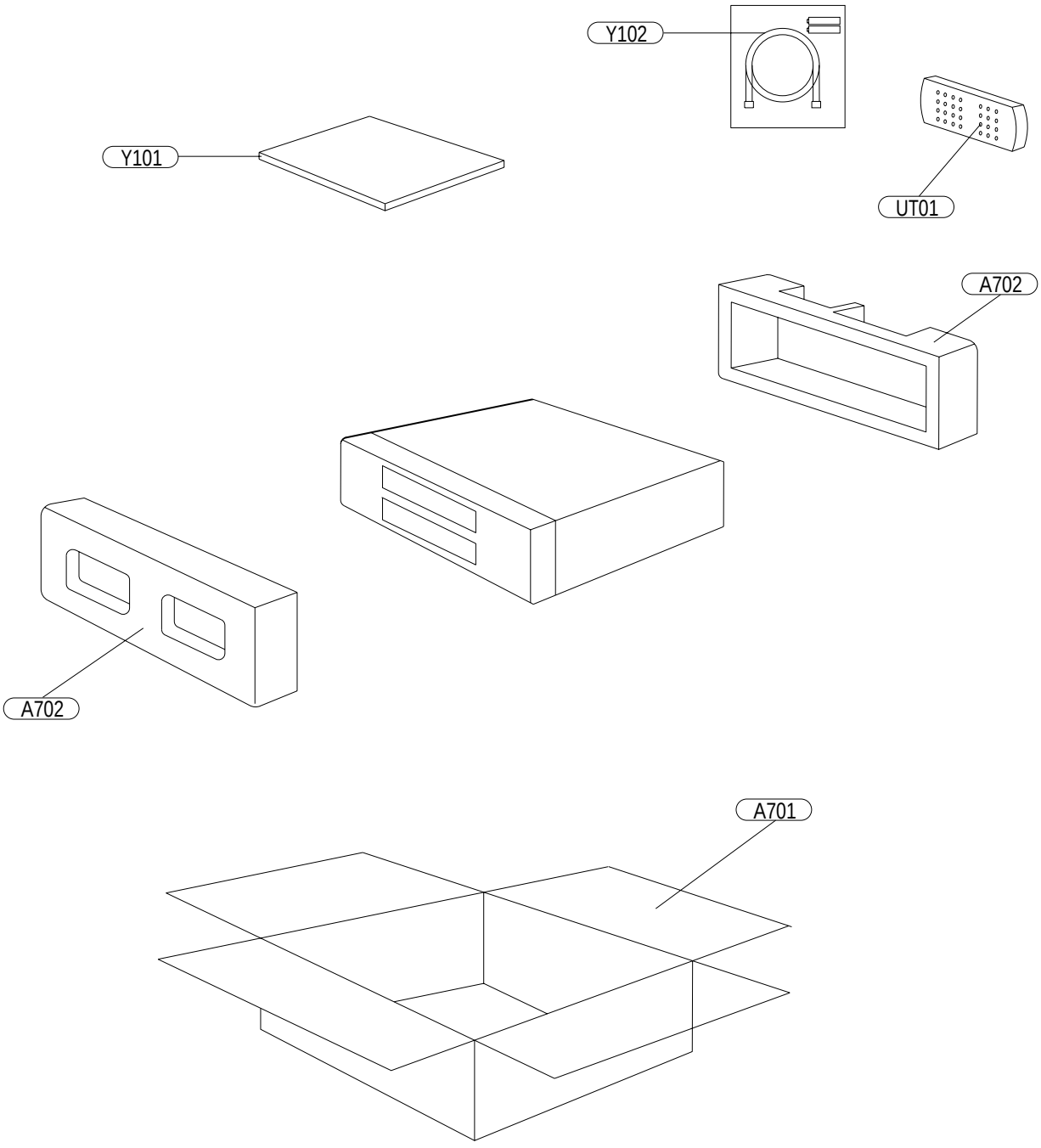
6-1 Packing Assembly - 6-2

6-2 Instrument Assembly - 6-3

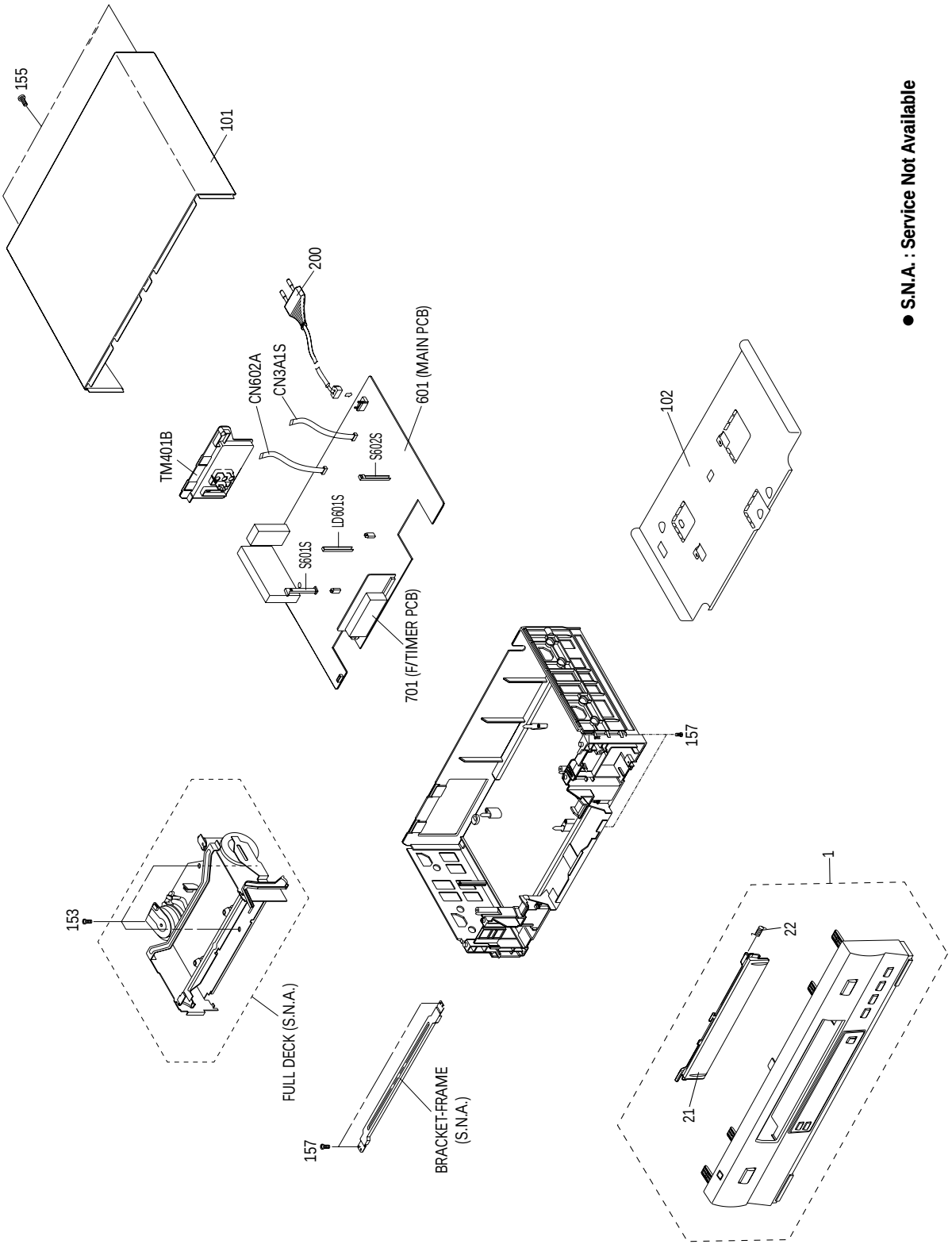
6-3 Mechanical Parts (Top Side) - 6-4

6-4 Mechanical Parts (Bottom Side) - 6-5

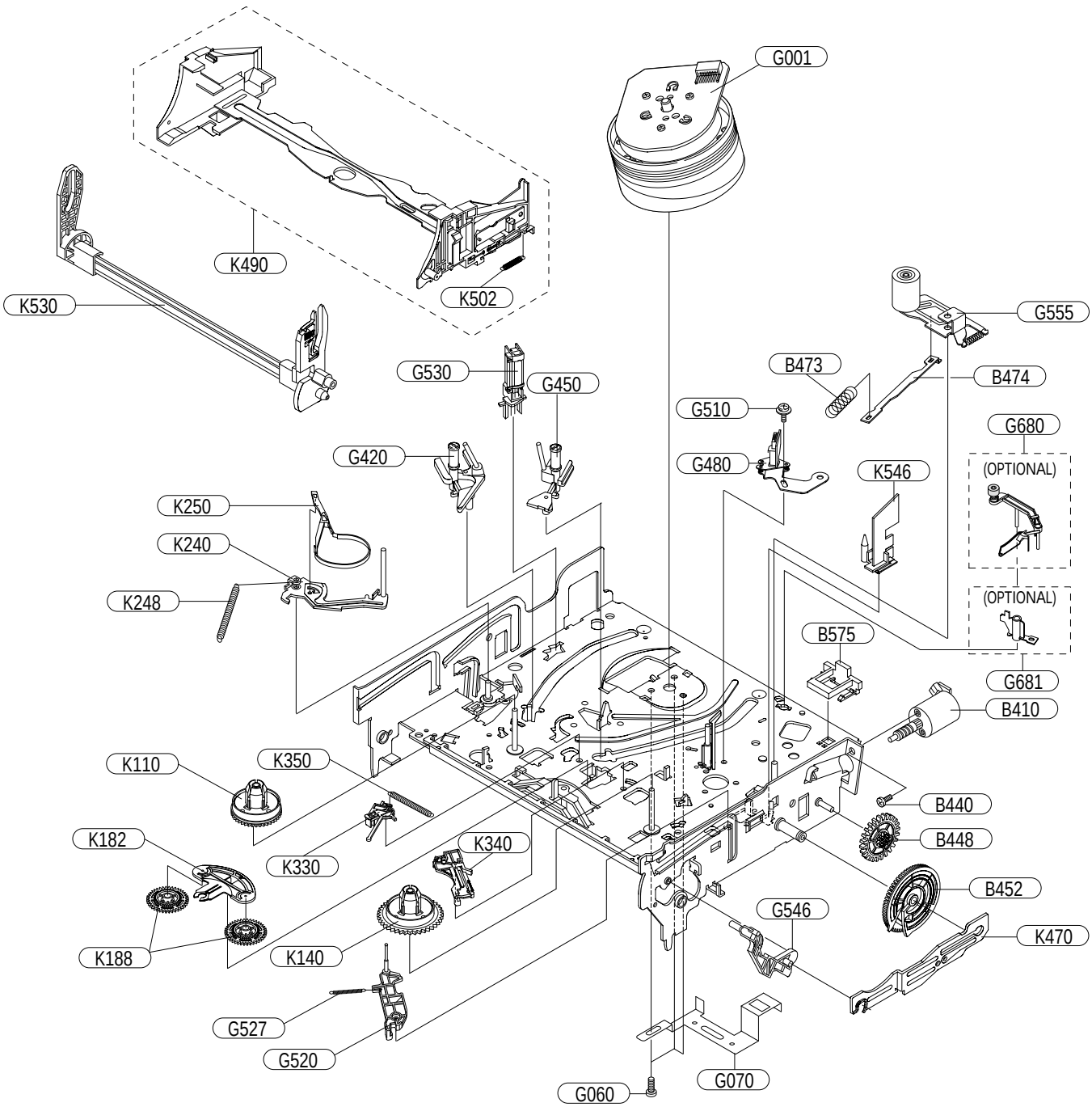
6-1 Packing Assembly



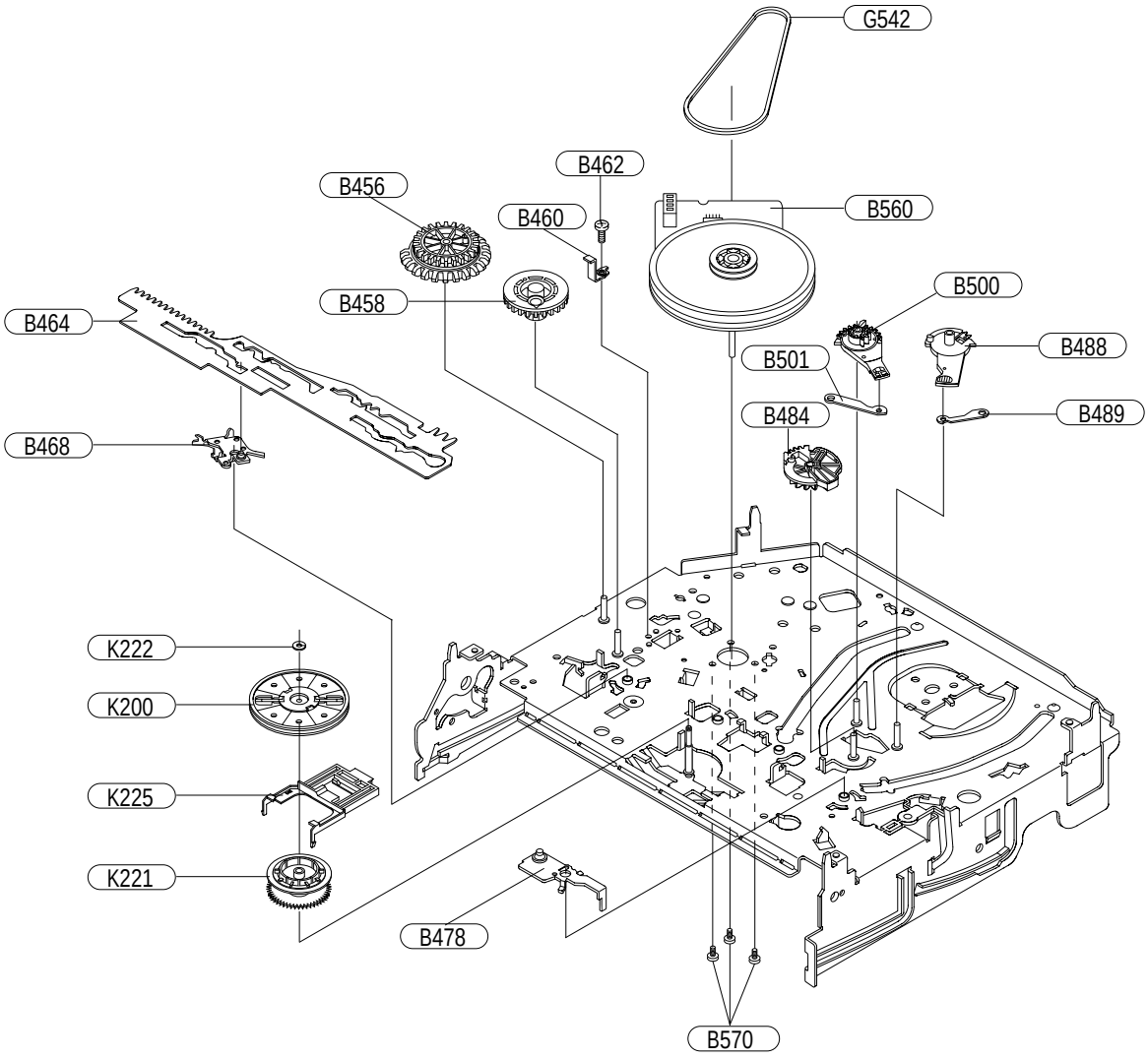
6-2 Instrument Assembly



6-3 Mechanical Parts (Top Side)



6-4 Mechanical Parts (Bottom Side)



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7. Replacement Parts List

Loc.No.	TSB Parts No.	Reference No.	Description ; Specification	Remark
- PACKING PARTS -				
A701	BY634580	AC69-00199A	PACKING CASE;VCP-C8/TSB,SW2+MAT,-,,-,-,4	
A702	BY730464	AC69-00041A	CUSHION-F/B;M-656/TSB,EPS,-,-,-,-,-	
UT01	BY634326	AC59-00013F	REMOCON-ASSY;-,PR4914,-,14KEY,VCP-C7/TSB	
Y101	BY634592	AC68-01175A	MANUAL USERS;VCP-C8/TSB,TSB,ENGLISH,-,-,	
Y101	BY634593	AC68-01175B	MANUAL USERS;VCP-C8/TSB,-,ARABIC,-,-,-,T	
Y101	BY634594	AC68-01175C	MANUAL USERS;VCP-C8/TSB,-,RUSIA,-,-,-,TS	
Y102	BY634253	AC39-00017A	CABLE-ETC-RF(PAL);-,MALE/FEMALE,1200MM,R	
- INSTRUMENT PARTS -				
1	BY634581	AC97-00521C	ASSY-FRONT PANEL;HIPS 94HB,VCP-C8/TSB,-	
21	BY634585	AC64-00686B	DOOR-CASSETTE;VCP-C8/TSB,ABS94HB NTR,-,S	
22	BY730093	AC61-62032A	SPRING-MASK;X-9,-,SUS,-,4.4,-,SV-C130	
101	BY730732	AC64-00400D	CABINET TOP-;V-611UK,PCM(SECC),T;0.525,-	
102	BY730730	AC63-00015A	COVER-BOTTOM;-,SECC,-,T;0.5,SECC T0.5,-,	
153	70790218	AC60-12126A	SCREW-BH;-,-,FE,FZY,BH,-,-,4*12,-,-	
155	70790082	AC60-12134A	SCREW-TAP BH;-,FZB,2-4X16,FE,BH,-,-,2-4X	
157	70790002	AC60-10063A	SCREW-TAPTITE;-,-,L12,ZPC3,+,-,M3,-,SWRC	
200	BY634124	AC39-10019A	POWER CORD;KKP-419C,H03VVH2-F,VDE/KEMA-K	
CN3A1S	BY634415	3809-001206	CABLE-FLAT;30V,-20to+80C,140mm,6P,1.25mm	
CN602S	BY634118	3809-001111	CABLE-FLAT;30V,80C,130mm,7P,1.25mm,UL289	
LD601A	BY730082	AC61-21009A	HOLDER-LED;-,POM(M90-44),-,BLK,-,X-9	
S601A	BY730080	AC61-21008A	HOLDER-SENSOR;-,POM(M90-44),-,BLK,-,X-9	
S602A	BY730080	AC61-21008A	HOLDER-SENSOR;-,POM(M90-44),-,BLK,-,X-9	
TM401B	BY634557	AC61-00151A	CHASSIS-ASSY;SV-445G,HIPS94HB,T2,-,-,-,-	
- MECHANICAL PARTS -				
B410	BY730718	AC31-00012A	MOTOR-LOADING ASSY;-,TS-10,-,-,-,-,-,-,-	
B440	BY730072	AC60-10515A	SCREW-MACHINE;-,-,M3,L3,PH,+,-,-,ZPC,-	
B448	BY730743	AC66-00008A	GEAR-WORM WHEEL;TS-10,POM,0.8,40,-,NAT,3	
B452	BY730745	AC66-00011A	GEAR-FL CAM;TS-10,POM,0.8,59,-,BLK,48.48	
B456	BY730744	AC66-00009A	GEAR-JOINT 1;TS-10,POM,1.5,17.5(22),-,NA	
B458	BY730746	AC66-00012A	GEAR-JOINT 2;TS-10,POM,1.0,23,-,BLK,24.6	
B460	BY730851	AC61-00090A	BRACKET-GEAR;TS-10,SECC E20/20,0.8,-,-,-	
B462	BY730073	AC60-10517A	SCREW-TAP TITE;-,-,M2.6,L5,PH,+,-,-,ZPC,	
B464	BY730749	AC66-00019A	SLIDER-CAM;TS-10,SECC E20/20,1.2,-,-,-,-	
B468	BY730748	AC66-00017A	LEVER-PINCH DRIVE;TS-10,SECC E20/20,1.0	
B473	BY730723	AC61-00105A	SPRING-PINCH DRIVE;TS-10,SUS304-WPB,-,-,	
B474	BY730244	AC61-30180A	PLATE-JOINT;X-9,SECC20/20,T0.8,-,-,-,-	
B478	BY730747	AC66-00016A	LEVER-TENSION DRIVE;TS-10,SECC E20/20,1	
B484	BY730755	AC66-00030A	GEAR-LOADING DR. ASS'Y;TS-10,POM+SWPB,-,	
B488	BY730753	AC66-00023A	LEVER-S LOADING;TS-10,POM,-,-,-,-,NAT,-	
B489	BY730751	AC66-00021A	LINK-LOADING S;TS-10,SECC E20/20,0.8,-,-	
B500	BY730754	AC66-00024A	LEVER-T LOADING;TS-10,POM,-,-,-,-,NAT,-	
B501	BY730752	AC66-00022A	LINK-LOADING T;TS-10,SECC E20/20,0.8,-,-	
B560	BY730999	AC31-00014A	MOTOR-CAPSTAN;DMVCMC08A,TS-10,-,-,-,-,-,	
B570	BY730071	AC60-10514A	SCREW-CAPSTAN;-,-,M2.6,L6,PH,+,-,-,-,-	
B575	BY730721	AC47-00002A	DAMPER-CAPSTAN;TS-10,POM,-,-,BLACK	
G001	BY730960	AC97-01209A	ASSY-CYLINDER;PAL,CTS10,2HD(LP)	
G060	BY634416	6006-001092	SCREW-ASS'Y MACH;WS,PH,+,M3.0,L6.0,ZPC(Y	
G070	BY730728	AC61-00161A	PLATE-GROUND DECK;TS-10,SPTE,T0.3,-,-,-,	
G420	BY730124	AC66-80142A	SLIDER-SUPPLY ASSY;-,X-9(TS),-,-,-,X-9	
G450	BY730123	AC66-80141A	SLIDER-TAKE UP ASSY;-,X-9(TS),-,-,-,X-9	
G480	BY730848	AC33-00009B	HEAD-ACE ASS'Y;-,PPS - TDK,TS-10 ,-,-	
G510	BY730479	6006-001075	SCREW-ASS'Y TAPT;WSP,PH,+,M2.6,L5.0,ZPC(	
G520	BY730757	AC66-00033A	LEVER-#9 GUIDE ASS'Y;TS-10,-,-,-,-,-,-,-	
G527	BY730088	AC61-60553A	SPRING-#9 GUIDE;-,ES,SUS304-WPB,OD3.1,0.	
G530	BY730719	AC33-00006A	HEAD-FE;-,-,VTR-1 * 2ERS11-144,-,-	
G542	BY730122	AC66-60051A	BELT-PULLEY;-,5CM-70,2 * 2,-,71.3,-,X-9	
G546	BY730741	AC66-00005A	LEVER-FL DOOR;TS-10,POM,-,-,-,-,NAT,-	
G555	BY730756	AC66-00032A	LEVER-UNIT PINCH ASS'Y;TS-10,-,-,-,-,-,-	
GP301	BY730731	AC63-00043A	SHIELD CASE-GROUND PCB;SV-643F,STPE,T0.3	
HS01	BY730277	AC62-30100A	HEAT SINK-POWER;-,3516ET,-,T0.5,-,-,-,SV	
HS02	70796133	AC62-32001B	HEAT SINK-MAIN;A1050R,-,T22.5,-,W15,L26.	
K110	BY730102	AC66-10267A	REEL-DISK S;X-9,POM,-,-,-,-,-,-	
K140	BY730103	AC66-10268A	REEL-DISK T;X-9,POM,-,-,-,-,-,-	
K182	BY730112	AC66-30524A	LEVER-IDLER;-,POM,-,-,-,-,-,-	
K188	BY730760	AC66-00039A	GEAR-IDLE;TS-10,PET K3372,0.5,-,-,NTR,28	
K200	BY730084	AC61-21012A	HOLDER-CLUTCH ASSY;-,-,-,-,-,-,X-9	

Loc.No.	TSB Parts No.	Reference No.	Description ; Specification	Remark
K221	BY730111	AC66-20581A	GEAR-CENTER ASSY;-,POM,M=O.5,-,HIGHT T.,	
K222	BY730076	AC60-30306A	WASHER-SLIT;-,-,ID2.1,OD5.0,T0.5,-,POLYS	
K225	BY730742	AC66-00006A	LEVER-UP DOWN;TS-10,POM,-,-,-,-,NAT,-	
K240	BY730759	AC66-00035A	LEVER-TENSION ASS'Y;TS-10,SECC E20/20+SU	
K248	BY730725	AC61-00107A	SPRING-TENSION LEVER;TS-10,SUS304-WPB,-,	
K250	BY730762	AC69-00104A	BAND-BRAKE ASS'Y;TS-10,-,-,-,-,-,-	
K330	BY730121	AC66-30550A	LEVER-S.BRAKE ASSY;-,POM+SUS,-,-,-,X-9	
K340	BY730120	AC66-30549A	LEVER-T.BRAKE ASSY;-,POM+SUS,-,-,-,X-9	
K350	BY730724	AC61-00106A	SPRING-BRAKE;TS-10,SUS304-WPB,-,-,-,-,-,	
K470	BY730750	AC66-00020A	SLIDER-FL DRIVE;TS-10,SECC E20/20,1.0,-,	
K490	BY730726	AC61-00120A	HOLDER-FL CASS. ASS'Y;TS-10,-,-,-,-,-	
K502	BY730091	AC61-60561A	SPRING-FL.LEVER-LR;-,ES,SUS304 WPB,PI2.7	
K530	BY730758	AC66-00034A	LEVER-FL ARM ASS'Y;TS-10,-,-,-,-,-,-,-	
K546	BY730086	AC61-50658A	GUIDE-CASS. DOOR;X-9,POM,-,-,-,NTR	
SC01	22797145	6003-000283	SCREW-TAPTITE;BH,+,B,M3,L8,ZPC(YEL),SM20	
SC02	22797145	6003-000283	SCREW-TAPTITE;BH,+,B,M3,L8,ZPC(YEL),SM20	

- ELECTRICAL PARTS -

601	BY630208	AC92-00810A	ASSY PCB-MAIN;VCP-C8,VCP,FREE	
< INTEGRATED CIRCUITS >				
IC1SF1	BY631087	1203-001802	IC-PWM CONTROLLER;STR-G6551,TO-220F,5P,-	
IC1SS1	BY530021	0604-000186	PHOTO-COUPLER;TR,-,200mW,DIP-4,ST	⚠
IC1SS2	BY631008	AC14-12006D	IC;KA431Z,TO-92,TAPING	
IC301	BY631102	1204-001648	IC-VIDEO PROCESS;LA71578M,QFP,100P,-,PLA	
IC601	BY631175	AC09-00225A	IC MICOM;784927GC-511-8EU,SV-140G-02,10	
IC604	70795269	AC14-12006C	IC;KA7533,DIP,-	
IC605	BY631045	1103-001148	IC-EEPROM;24C021,2KBIT,DIP,8P,300MIL,10M	
IC610	BY631126	1003-001318	IC-MOTOR DRIVER;LB11880,DIP,30P,417MIL,-	
IC6P01	BY631104	AC09-10458R	IC-MCU;LC74783JM-9745,24P,MFP,OSD IC,-	
	BY631165	AC09-10459K	IC-MCU;-,-,20P,3V,455KHZ,-,-,-,-,-,SO	
< TRANSISTORS >				
PT601	BY530005	0604-001122	PHOTO-INTERRUPTER;TR,0.065%,150mW,DIP-4,	
PT602	BY530005	0604-001122	PHOTO-INTERRUPTER;TR,0.065%,150mW,DIP-4,	
Q1P101	70693265	0501-000616	TR-SMALL SIGNAL;KSC2328A-Y,NPN,1W,TO-92L	
Q1P102	70693265	0501-000616	TR-SMALL SIGNAL;KSC2328A-Y,NPN,1W,TO-92L	
Q1P104	70693410	0501-000610	TR-SMALL SIGNAL;KSA928A-Y,PNP,1W,TO-92L,	
Q1P105	70795137	0504-000116	TR-DIGITAL;KSR1001,NPN,300MW,4.7K/4.7K,T	
Q302	70795134	0501-000303	TR-SMALL SIGNAL;KSA733,PNP,250mW,TO-92,T	
Q303	70795136	0501-000398	TR-SMALL SIGNAL;KSC945,NPN,250mW,TO-92,T	
Q304	70795136	0501-000398	TR-SMALL SIGNAL;KSC945,NPN,250mW,TO-92,T	
Q307	BY530014	0504-000119	TR-DIGITAL;KSR1004,NPN,300MW,47K/47K,TO-	
Q308	70795136	0501-000398	TR-SMALL SIGNAL;KSC945,NPN,250mW,TO-92,T	
Q309	70795136	0501-000398	TR-SMALL SIGNAL;KSC945,NPN,250mW,TO-92,T	
Q3A01	70795134	0501-000303	TR-SMALL SIGNAL;KSA733,PNP,250mW,TO-92,T	
Q3A03	70795142	0501-000442	TR-SMALL SIGNAL;KTC3203-Y,NPN,400MW,T0-9	
Q3A04	70795142	0501-000442	TR-SMALL SIGNAL;KTC3203-Y,NPN,400MW,T0-9	
Q3A05	70795142	0501-000442	TR-SMALL SIGNAL;KTC3203-Y,NPN,400MW,T0-9	
Q3A06	70795134	0501-000303	TR-SMALL SIGNAL;KSA733,PNP,250mW,TO-92,T	
Q602	70795136	0501-000398	TR-SMALL SIGNAL;KSC945,NPN,250mW,TO-92,T	
Q6P01	70795134	0501-000303	TR-SMALL SIGNAL;KSA733,PNP,250mW,TO-92,T	
Q6P02	70795134	0501-000303	TR-SMALL SIGNAL;KSA733,PNP,250mW,TO-92,T	
Q701	70795136	0501-000398	TR-SMALL SIGNAL;KSC945,NPN,250mW,TO-92,T	
Q702	70795136	0501-000398	TR-SMALL SIGNAL;KSC945,NPN,250mW,TO-92,T	
Q703	70795136	0501-000398	TR-SMALL SIGNAL;KSC945,NPN,250mW,TO-92,T	
Q704	70795136	0501-000398	TR-SMALL SIGNAL;KSC945,NPN,250mW,TO-92,T	
Q705	70795136	0501-000398	TR-SMALL SIGNAL;KSC945,NPN,250mW,TO-92,T	
Q707	70795136	0501-000398	TR-SMALL SIGNAL;KSC945,NPN,250mW,TO-92,T	
Q711	70795818	0501-000290	TR-SMALL SIGNAL;KSA643-Y,PNP,500mW,TO-92	
S601	BY530003	0603-001011	PHOTO-TR;NPN,35V,6V,50mA,75mW,BK	
S602	BY530003	0603-001011	PHOTO-TR;NPN,35V,6V,50mA,75mW,BK	
< DIODES >				
D1P101	70795150	0401-000101	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D1SD11	BY430011	0402-001195	DIODE-RECTIFIER;F1T4,400V,1.0A,TS-1,TP	
D1SD31	BY430011	0402-001195	DIODE-RECTIFIER;F1T4,400V,1.0A,TS-1,TP	
D1SF05	BY430012	0402-001196	DIODE-RECTIFIER;1T5,600V,1A,TS-1,TP	
D1SF12	BY430011	0402-001195	DIODE-RECTIFIER;F1T4,400V,1.0A,TS-1,TP	
D1SS01	BY430012	0402-001196	DIODE-RECTIFIER;1T5,600V,1A,TS-1,TP	
D1SS02	BY430012	0402-001196	DIODE-RECTIFIER;1T5,600V,1A,TS-1,TP	
D1SS03	BY430012	0402-001196	DIODE-RECTIFIER;1T5,600V,1A,TS-1,TP	
D1SS04	BY430012	0402-001196	DIODE-RECTIFIER;1T5,600V,1A,TS-1,TP	
D1SS11	BY430047	0402-000012	DIODE-RECTIFIER;UF4007,1KV,1A,DO-41,TP	

Loc.No.	TSB Parts No.	Reference No.	Description ; Specification	Remark
D1SS30	70796385	0402-000127	DIODE-RECTIFIER;1N4002,100V,1A,DO-41,TP	
D1SS31	BY430011	0402-001195	DIODE-RECTIFIER;F1T4,400V,1.0A,TS-1,TP	
D1SS32	BY430010	0402-001194	DIODE-RECTIFIER;UG2D,200V,2A,DO-204AC,TP	
D1SS33	BY430009	0402-000431	DIODE-RECTIFIER;FML-M02S,200V,2.5A,TO-22	
D302	70795150	0401-000101	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D602	70796385	0402-000127	DIODE-RECTIFIER;1N4002,100V,1A,DO-41,TP	
D603	70795150	0401-000101	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D604	70795150	0401-000101	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D612	70796385	0402-000127	DIODE-RECTIFIER;1N4002,100V,1A,DO-41,TP	
D701	70795150	0401-000101	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D702	70795150	0401-000101	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D703	70795150	0401-000101	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D704	70795150	0401-000101	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D705	70795150	0401-000101	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D708	70795150	0401-000101	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D709	70795150	0401-000101	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D720	70795150	0401-000101	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D802	70795150	0401-000101	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
LD601	BY430016	0601-000517	LED-IR;RECTANGULA,4x6.0mm,75mW,6V,950	
LDF1	BY634587	0601-001408	LED;ROUND,GRN,-,-	
LDF2	BY634587	0601-001408	LED;ROUND,GRN,-,-	
LDF3	BY634587	0601-001408	LED;ROUND,GRN,-,-	
LDF4	BY430066	0601-001201	LED;ROUND,RED,3mm,635nm	
LDF5	BY634587	0601-001408	LED;ROUND,GRN,-,-	
W230	70796385	0402-000127	DIODE-RECTIFIER;1N4002,100V,1A,DO-41,TP	
W513	70795150	0401-000101	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
ZD1P02	BY430005	0403-000717	DIODE-ZENER;MTZJ5.1B,5.1V,4.94-5.2V,500m	
ZD1P04	BY430013	0403-000720	DIODE-ZENER;MTZJ9.1B,9.1V,8.57-9.01V,500	
ZD401	70795272	0403-000390	DIODE-ZENER;UZP33B,33V,31.4-34.6V,1W,DO-	
	BY634595	0601-000519	LED-IR;ROUND,5mm,170mW,4V,940nm,-	
< INDUCTORS >				
BD1SD1	70795644	AC27-92001M	INDUCTOR;70UH-M RT BFS3565R2F,-,-,-,-	
BD1SF1	BY330019	3301-000297	CORE-FERRITE BEAD;AA,3.6x1.2x5.7mm,1400,	
BD1SF2	70795644	AC27-92001M	INDUCTOR;70UH-M RT BFS3565R2F,-,-,-,-	
BD1SF3	70795644	AC27-92001M	INDUCTOR;70UH-M RT BFS3565R2F,-,-,-,-	
BD1SS2	70795644	AC27-92001M	INDUCTOR;70UH-M RT BFS3565R2F,-,-,-,-	
BD1SS3	BY330019	3301-000297	CORE-FERRITE BEAD;AA,3.6x1.2x5.7mm,1400,	
FL3A01	BY330006	AC27-80100C	COIL-OSC;7mm,2.4mH,-	
L1SS02	BY634272	AC29-00002A	FILTER LINE NOISE;-,30mH,-,-,BLF-2116	⚠
L1SS31	70796213	AC27-12001N	COIL-CHOKE;10UH-15%,RA,K-30,Q80,150KHZ,-	
L1SS32	70796213	AC27-12001N	COIL-CHOKE;10UH-15%,RA,K-30,Q80,150KHZ,-	
L301	70795841	2701-000206	INDUCTOR-AXIAL;56uH,5%,2.4x3.4mm	
L302	BY330009	2701-000002	INDUCTOR-AXIAL;100uH,10%,4.2x9.8mm	
L304	70796003	2702-000106	INDUCTOR-RADIAL;100uH,10%,6.2x7.4mm	
L306	70796361	2701-000119	INDUCTOR-AXIAL;120uH,5%,2.4x3.4mm	
L307	70796159	2701-000122	INDUCTOR-AXIAL;12uH,5%,2.4x3.4mm	
L310	70796003	2702-000106	INDUCTOR-RADIAL;100uH,10%,6.2x7.4mm	
L3A01	70795171	2702-000120	INDUCTOR-RADIAL;15mH,5%,6.2x7.4mm	
L3A02	70796003	2702-000106	INDUCTOR-RADIAL;100uH,10%,6.2x7.4mm	
L3A03	70796003	2702-000106	INDUCTOR-RADIAL;100uH,10%,6.2x7.4mm	
L401	BY330009	2701-000002	INDUCTOR-AXIAL;100uH,10%,4.2x9.8mm	
L601	BY330009	2701-000002	INDUCTOR-AXIAL;100uH,10%,4.2x9.8mm	
L602	BY330009	2701-000002	INDUCTOR-AXIAL;100uH,10%,4.2x9.8mm	
L603	BY330009	2701-000002	INDUCTOR-AXIAL;100uH,10%,4.2x9.8mm	
L6P01	70796003	2702-000106	INDUCTOR-RADIAL;100uH,10%,6.2x7.4mm	
L6P03	70795162	2701-000160	INDUCTOR-AXIAL;22uH,5%,2.4x3.4mm	
L6P05	BY330020	2702-001077	INDUCTOR-RADIAL;27uH,5%,5.5x5.5mm	
L808	BY330053	2701-000181	INDUCTOR-AXIAL;33uH,5%,2.4x3.4mm	
L810	BY330053	2701-000181	INDUCTOR-AXIAL;33uH,5%,2.4x3.4mm	
W067	BY330009	2701-000002	INDUCTOR-AXIAL;100uH,10%,4.2x9.8mm	
W136	BY330009	2701-000002	INDUCTOR-AXIAL;100uH,10%,4.2x9.8mm	
< CAPACITORS >				
C1P102	BY130009	2401-001545	C-AL;47uF,20%,25V,GP,TP,6.3x7mm,2.5	
C1P103	BY130042	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C1P104	BY130136	2401-002299	C-AL;4.7uF,20%,50V,GP,TP,5x7,5	
C1P105	BY130009	2401-001545	C-AL;47uF,20%,25V,GP,TP,6.3x7mm,2.5	
C1P106	BY130009	2401-001545	C-AL;47uF,20%,25V,GP,TP,6.3x7mm,2.5	
C1P108	BY130288	2401-001573	C-AL;47uF,20%,50V,GP,TP,6.3x11,2.5	
C1SD03	BY130216	2201-000812	C-CERAMIC,DISC;2.2nF,20%,400V,Y5U,BK,12.	
C1SD04	BY130216	2201-000812	C-CERAMIC,DISC;2.2nF,20%,400V,Y5U,BK,12.	
C1SD11	BY130181	2401-003303	C-AL;82uF,20%,400V,GP,BK,22X30,10	
C1SD12	BY130226	2305-001029	C-FILM,MPEF;10nF,10%,630V,TP,12x9x12.5,5	
C1SD13	70795070	2201-000376	C-CERAMIC,DISC;0.22nF,5%,50V,SL,TP,6.3x3	
C1SF12	BY130290	2401-001200	C-AL;33uF,20%,50V,WT,TP,6.3x11,5	
C1SS01	BY130272	2305-001021	C-FILM,MPEF;100nF,20%,275V,TP,17.5x7x13.	⚠

Loc.No.	TSB Parts No.	Reference No.	Description ; Specification	Remark
C1SS02	BY130272	2305-001021	C-FILM,MPEF;100nF,20%,275V,TP,17.5x7x13.	⚠
C1SS03	70795095	2301-000361	C-FILM,PEF;1.2nF,10%,50V,TP,-,5mm	
C1SS12	BY130258	2201-000129	C-CERAMIC,DISC;0.1nF,10%,1kV,Y5P,TP,7x4,	
C1SS31	70795431	2401-000385	C-AL;10uF,20%,100V,GP,TP,6.3x11,5	
C1SS32	BY130187	2401-003137	C-AL;330UF,20%,50V,WT,TP,10X16MM,5	
C1SS33	BY130248	2401-003477	C-AL;330UF,20%,25V,LZ,TP,10X12.5MM,	
C1SS34	BY130248	2401-003477	C-AL;330UF,20%,25V,LZ,TP,10X12.5MM,	
C1SS35	BY130339	2401-003480	C-AL;1000UF,20%,10V,LZ,TP,10X16MM,5	
C1SS36	BY130015	2401-001479	C-AL;470uF,20%,10V,GP,TP,-,-	
C1SS39	70796098	2301-000129	C-FILM,PEF;100nF,5%,50V,TP,10X9X4.3X5,5m	
C301	70795769	2401-001919	C-AL;2.2uF,20%,50V,-,TP,4x7mm,5	
C302	BY130024	2301-000283	C-FILM,PEF;47nF,5%,100V,TP,7.3X7X3.2X5,5	
C303	BY130042	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C304C	BY130154	2203-000683	C-CERAMIC,CHIP;0.027nF,5%,50V,NP0,TP,201	
C305	70697011	2202-000164	C-CERAMIC,MLC-AXIAL;0.18nF,10%,50V,Y5P,T	
C306	BY130263	2202-000231	C-CERAMIC,MLC-AXIAL;330pF,10%,50V,Y5P,TP	
C307C	BY130342	2203-000392	C-CERAMIC,CHIP;0.015nF,5%,50V,SL,TP,2012	
C308C	70796281	2203-000260	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,2012	
C309	BY130042	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C310	BY130273	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C311	70699092	2401-000918	C-AL;22uF,20%,16V,GP,-,6.3x7,5	
C313C	BY130167	2203-000444	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,2012,-	
C314	BY130278	2401-001775	C-AL;470nF,20%,50V,GP,TP,4x7,5	
C315	BY130273	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C316C	BY130347	2203-001064	C-CERAMIC,CHIP;56NF,10%,50V,NPO,TP,2012	
C318	BY130027	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C320	BY130042	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C321	BY130273	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C322	BY130042	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C323C	70796281	2203-000260	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,2012	
C324C	70796281	2203-000260	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,2012	
C325	70795075	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C326	BY130027	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C327	BY130282	2401-003107	C-AL;47uF,20%,16V,GP,TP,5x7,5	
C328	70795075	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C329	70795075	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C330	70795075	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C331	BY130282	2401-003107	C-AL;47uF,20%,16V,GP,TP,5x7,5	
C332	BY130027	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C333	BY130042	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C334C	BY130020	2203-000989	C-CERAMIC,CHIP;47nF,10%,50V,X7R,TP,2012	
C335	BY130042	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C336	BY130042	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C337	70693249	2202-000807	C-CERAMIC,MLC-AXIAL;22nF,+80-20%,25V,Y5V	
C338C	70796281	2203-000260	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,2012	
C339C	BY130020	2203-000989	C-CERAMIC,CHIP;47nF,10%,50V,X7R,TP,2012	
C340C	70795974	2203-000609	C-CERAMIC,CHIP;22nF,10%,50V,X7R,TP,2012	
C341	BY130282	2401-003107	C-AL;47uF,20%,16V,GP,TP,5x7,5	
C342	BY130027	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C343C	70796281	2203-000260	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,2012	
C345C	BY130348	2203-001088	C-CERAMIC,CHIP;0.005nF,0.25pF,50V,NP0,TP	
C346	BY130282	2401-003107	C-AL;47uF,20%,16V,GP,TP,5x7,5	
C347C	BY130156	2203-001077	C-CERAMIC,CHIP;0.056nF,5%,50V,NP0,TP,201	
C348C	BY130156	2203-001077	C-CERAMIC,CHIP;0.056nF,5%,50V,NP0,TP,201	
C349C	BY130343	2203-000429	C-CERAMIC,CHIP;0.018nF,5%,50V,NP0,TP,201	
C350C	70796281	2203-000260	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,2012	
C380C	BY130382	2203-000749	C-CERAMIC,CHIP;30pF,5%,50V,NPO,TP,2012,-	
C381	70795075	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C390	BY130027	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C393	70693215	2202-000787	C-CERAMIC,MLC-AXIAL;10PF,5%,50V,Y5P,TP,3	
C395	BY130027	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C397	BY130027	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C399	BY130027	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C3A01	BY130136	2401-002299	C-AL;4.7uF,20%,50V,GP,TP,5x7,5	
C3A02	BY130027	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C3A04	BY130027	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C3A08	70795585	2301-000383	C-FILM,PEF;10nF,5%,50V,TP,6x7x3.2mm,5mm	
C3A09	BY130041	2301-001014	C-FILM,PEF;6.8nF,5%,50V,TP,7x3x6,5mm	
C3A10C	70796409	2203-001214	C-CERAMIC,CHIP;8.2nF,10%,50V,X7R,TP,2012	
C3A11	BY130145	2301-000253	C-FILM,PEF;39NF,5%,100V,TP,7.5X4.5X12.5M	
C3A12	BY130282	2401-003107	C-AL;47uF,20%,16V,GP,TP,5x7,5	
C3A13C	70796336	2203-000323	C-CERAMIC,CHIP;12nF,10%,50V,X7R,TP,2012,	
C3A14C	70796337	2203-001105	C-CERAMIC,CHIP;6.8nF,10%,50V,X7R,TP,2012	
C3A15C	70796281	2203-000260	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,2012	
C3A16	70795626	2401-003122	C-AL;4.7uF,20%,50V,LL,TP,4X7,1.5	
C3A17	BY130273	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C3A18C	BY130011	2203-001665	C-CERAMIC,CHIP;0.56nF,10%,50V,X7R,TP,201	
C3A21C	BY130166	2203-000495	C-CERAMIC,CHIP;2.2nF,10%,50V,X7R,TP,2012	
C3A22	BY130027	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	

Loc.No.	TSB Parts No.	Reference No.	Description ; Specification	Remark
C3A23	BY130277	2401-001169	C-AL;33uF,20%,16V,GP,-,6.3x7,2.5mm	
C3A24	BY130027	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C3A25	70699092	2401-000918	C-AL;22uF,20%,16V,GP,-,6.3x7,5	
C3A29	BY130027	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C3A30	BY130282	2401-003107	C-AL;47uF,20%,16V,GP,TP,5x7,5	
C401	BY130049	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5	
C402	70693249	2202-000807	C-CERAMIC,MLC-AXIAL;22nF,+80-20%,25V,Y5V	
C403	BY130049	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5	
C405	BY130281	2401-003046	C-AL;47uF,20%,50V,WT,TP,6.3x11,2.5	
C406C	70795974	2203-000609	C-CERAMIC,CHIP;22nF,10%,50V,X7R,TP,2012	
C407	BY130049	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5	
C410	BY130027	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C420	70796210	2401-000118	C-AL;1000uF,20%,10V,GP,TP,10x12.5,5	
C601	BY130049	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5	
C602C	70795974	2203-000609	C-CERAMIC,CHIP;22nF,10%,50V,X7R,TP,2012	
C603C	BY130174	2203-000891	C-CERAMIC,CHIP;4.7nF,10%,50V,X7R,TP,2012	
C604C	BY130174	2203-000891	C-CERAMIC,CHIP;4.7nF,10%,50V,X7R,TP,2012	
C605C	70796281	2203-000260	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,2012	
C606C	70796281	2203-000260	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,2012	
C607	70796210	2401-000118	C-AL;1000uF,20%,10V,GP,TP,10x12.5,5	
C608C	BY130004	2203-000575	C-CERAMIC,CHIP;220NF,10%,25V,X7R,TP,2012	
C609C	70795974	2203-000609	C-CERAMIC,CHIP;22nF,10%,50V,X7R,TP,2012	
C611C	BY130014	2203-001579	C-CERAMIC,CHIP;15nF,10%,50V,NP0,TP,2012	
C612	BY130027	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C613C	70795974	2203-000609	C-CERAMIC,CHIP;22nF,10%,50V,X7R,TP,2012	
C615C	BY130167	2203-000444	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,2012,-	
C616	70693249	2202-000807	C-CERAMIC,MLC-AXIAL;22nF,+80-20%,25V,Y5V	
C617	70796212	2401-000591	C-AL;1uF,20%,50V,BP,TP,3x5,2.5mm	
C618	BY130317	2401-000360	C-AL;100uF,20%,50V,GP,TP,8x11.5,5	
C619C	70796281	2203-000260	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,2012	
C620	70795041	2001-000786	R-CARBON;47KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
C621	70796210	2401-000118	C-AL;1000uF,20%,10V,GP,TP,10x12.5,5	
C622C	BY130383	2203-001680	C-CERAMIC,CHIP;68nF,20%,50V,Z5U,TP,2012	
C623C	70795974	2203-000609	C-CERAMIC,CHIP;22nF,10%,50V,X7R,TP,2012	
C626C	BY130152	2203-000634	C-CERAMIC,CHIP;0.022nF,5%,50V,NP0,TP,201	
C627C	BY130152	2203-000634	C-CERAMIC,CHIP;0.022nF,5%,50V,NP0,TP,201	
C629C	BY130167	2203-000444	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,2012,-	
C633C	70796281	2203-000260	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,2012	
C634C	70796281	2203-000260	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,2012	
C635C	BY130166	2203-000495	C-CERAMIC,CHIP;2.2nF,10%,50V,X7R,TP,2012	
C636C	BY130166	2203-000495	C-CERAMIC,CHIP;2.2nF,10%,50V,X7R,TP,2012	
C637C	70795976	2203-000938	C-CERAMIC,CHIP;0.47nF,5%,50V,NP0,TP,2012	
C638	BY130136	2401-002299	C-AL;4.7uF,20%,50V,GP,TP,5x7,5	
C639C	70795969	2203-000239	C-CERAMIC,CHIP;0.1nF,5%,50V,NP0,TP,2012	
C640	BY130009	2401-001545	C-AL;47uF,20%,25V,GP,TP,6.3x7mm,2.5	
C641	BY130280	2401-002165	C-AL;100uF,20%,16V,GP,TP,6.3x7,5	
C644C	72531473	2203-000595	C-CERAMIC,CHIP;0.22nF,5%,50V,NP0,TP,2012	
C646	BY130027	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C651C	70795974	2203-000609	C-CERAMIC,CHIP;22nF,10%,50V,X7R,TP,2012	
C652C	70795974	2203-000609	C-CERAMIC,CHIP;22nF,10%,50V,X7R,TP,2012	
C653C	70795974	2203-000609	C-CERAMIC,CHIP;22nF,10%,50V,X7R,TP,2012	
C690C	BY130020	2203-000989	C-CERAMIC,CHIP;47nF,10%,50V,X7R,TP,2012	
C691C	70796281	2203-000260	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,2012	
C692	BY130015	2401-001479	C-AL;470uF,20%,10V,GP,TP,-,-	
C695C	BY130151	2203-000361	C-CERAMIC,CHIP;0.15nF,5%,50V,NP0,TP,2012	
C6P01	BY130027	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C6P02	BY130015	2401-001479	C-AL;470uF,20%,10V,GP,TP,-,-	
C6P03	70795075	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C6P04	70795080	2202-000216	C-CERAMIC,MLC-AXIAL;.027NF,5%,50V,SL,TP,	
C6P05	70795080	2202-000216	C-CERAMIC,MLC-AXIAL;.027NF,5%,50V,SL,TP,	
C6P08C	BY130156	2203-001077	C-CERAMIC,CHIP;0.056nF,5%,50V,NP0,TP,201	
C6P10	BY130042	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C6P11	BY130042	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C6P12	BY130015	2401-001479	C-AL;470uF,20%,10V,GP,TP,-,-	
C6P13	BY130027	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C6P50	BY130170	2202-000145	C-CERAMIC,MLC-AXIAL;.12NF,10%,50V,Y5P,TP	
C701	BY130015	2401-001479	C-AL;470uF,20%,10V,GP,TP,-,-	
C702C	70796281	2203-000260	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,2012	
C703	BY130262	2202-000173	C-CERAMIC,MLC-AXIAL;1nF,10%,50V,Y5P,TP,1	
C806C	70795969	2203-000239	C-CERAMIC,CHIP;0.1nF,5%,50V,NP0,TP,2012	
C821	BY130015	2401-001479	C-AL;470uF,20%,10V,GP,TP,-,-	
C822C	70795969	2203-000239	C-CERAMIC,CHIP;0.1nF,5%,50V,NP0,TP,2012	
C837C	BY130344	2203-000784	C-CERAMIC,CHIP;0.33nF,5%,50V,NP0,TP,2012	
C845C	BY130344	2203-000784	C-CERAMIC,CHIP;0.33nF,5%,50V,NP0,TP,2012	
C851	BY130136	2401-002299	C-AL;4.7uF,20%,50V,GP,TP,5x7,5	
R694	BY130027	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	

Loc.No.	TSB Parts No.	Reference No.	Description ; Specification	Remark
< RESISTORS >				
R1P101	70795019	2001-000515	R-CARBON;220OHM,5%,1/8W,AA,TP,1.8X3.2MM	
R1P106	70795020	2001-000449	R-CARBON;2.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	
R1P107	70795007	2001-000273	R-CARBON;100KOHM,5%,1/8W,AA,TP,1.8X3.2M	
R1P108	BY230024	2001-000611	R-CARBON;3.9KOHM,5%,1/4W,AA,TP,2.4X6.4M	
R1P115	70795025	2001-000554	R-CARBON;270OHM,5%,1/8W,AA,TP,1.8X3.2MM	
R1SD12	70795004	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
R1SD13	BY230171	2001-000076	R-CARBON;47KOHM,5%,1/4W,AA,TP,2.4X6.4MM	
R1SD14	BY230171	2001-000076	R-CARBON;47KOHM,5%,1/4W,AA,TP,2.4X6.4MM	
R1SD15	BY230171	2001-000076	R-CARBON;47KOHM,5%,1/4W,AA,TP,2.4X6.4MM	
R1SD16	BY230027	2003-000994	R-METAL OXIDE(S);33Kohm,5%,2W,AF,TP,3.9x	
R1SD31	70795039	2001-000780	R-CARBON;470OHM,5%,1/8W,AA,TP,1.8X3.2MM	
R1SD32	70795005	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R1SF11	BY230171	2001-000076	R-CARBON;47KOHM,5%,1/4W,AA,TP,2.4X6.4MM	
R1SF15	70795031	2001-000591	R-CARBON;3.3KOHM,5%,1/8W,AA,TP,1.8X3.2M	
R1SF19	70795049	2001-000904	R-CARBON;620OHM,5%,1/8W,AA,TP,1.8X3.2MM	
R1SF20	BY230219	2003-002197	R-METAL OXIDE;0.47ohm,5%,2W,AF,TP,3.9x10	
R1SF21	BY230036	2001-000096	R-CARBON(S);1MOHM,5%,1/2W,AA,TP,2.4X6.4M	
R1SS10	BY230170	2006-000262	R-CEMENT;2.7ohm,10%,2W,CB,TP,7.5x11x20.	
R1SS11	BY230027	2003-000994	R-METAL OXIDE(S);33Kohm,5%,2W,AF,TP,3.9x	
R1SS13	BY230003	2003-000148	R-METAL OXIDE;100OHM,5%,2W,AE,TP,6X16MM	
R1SS32	70795005	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R1SS33	70795640	2004-000869	R-METAL;3Kohm,1%,1/8W,AA,TP,1.8x3.2mm	
R1SS34	70795638	2004-000459	R-METAL;2.2Kohm,1%,1/8W,AA,TP,1.8x3.2m	
R301	70795020	2001-000449	R-CARBON;2.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	
R302C	70795515	2007-000468	R-CHIP;1KOHM,5%,1/10W,DA,TP,2012	
R304	70795058	2001-000977	R-CARBON;8.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	
R306C	BY230221	2007-000024	R-CHIP;1.3KOHM,5%,1/10W,DA,TP,2012	
R308	70795005	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R309C	70795536	2007-000859	R-CHIP;4.3KOHM,5%,1/10W,DA,TP,2012	
R311C	70795515	2007-000468	R-CHIP;1KOHM,5%,1/10W,DA,TP,2012	
R312C	70795520	2007-000241	R-CHIP;1.5KOHM,5%,1/10W,DA,TP,2012	
R313	70795019	2001-000515	R-CARBON;220OHM,5%,1/8W,AA,TP,1.8X3.2MM	
R314C	70795710	2007-001118	R-CHIP;680OHM,5%,1/10W,DA,TP,2012	
R315	70699144	2001-000472	R-CARBON;2.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	
R316C	70795519	2007-000221	R-CHIP;1.2KOHM,5%,1/10W,DA,TP,2012	
R317C	70795531	2007-000766	R-CHIP;330OHM,5%,1/10W,DA,TP,2012	
R318C	70795531	2007-000766	R-CHIP;330OHM,5%,1/10W,DA,TP,2012	
R320	70795006	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R321	BY230096	2001-000009	R-CARBON;20KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R322	70795319	2001-000539	R-CARBON;24KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R324	70795025	2001-000554	R-CARBON;270OHM,5%,1/8W,AA,TP,1.8X3.2MM	
R325C	70795529	2007-000518	R-CHIP;2.7KOHM,5%,1/10W,DA,TP,2012	
R326C	70795537	2007-001001	R-CHIP;510OHM,5%,1/10W,DA,TP,2012	
R327C	70795537	2007-001001	R-CHIP;510OHM,5%,1/10W,DA,TP,2012	
R328	70795040	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	
R329C	70795589	2007-000872	R-CHIP;4.7KOHM,5%,1/10W,DA,TP,2012	
R330	70795040	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	
R331C	70795525	2007-000572	R-CHIP;220OHM,5%,1/10W,DA,TP,2012	
R332	70795039	2001-000780	R-CARBON;470OHM,5%,1/8W,AA,TP,1.8X3.2MM	
R333	70795039	2001-000780	R-CARBON;470OHM,5%,1/8W,AA,TP,1.8X3.2MM	
R334	70795004	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
R335	70795044	2001-000800	R-CARBON;5.1KOHM,5%,1/8W,AA,TP,1.8X3.2M	
R336	70795014	2001-000008	R-CARBON;15KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R339	70795357	2001-000258	R-CARBON;1.8KOHM,5%,1/8W,AA,TP,1.8X3.2M	
R341C	70795547	2007-001208	R-CHIP;82KOHM,5%,1/10W,DA,TP,2012	
R342	BY230038	2001-000812	R-CARBON;5.6KOHM,5%,1/8W,AA,TP,1.8X3.2M	
R3A01	70795011	2001-000331	R-CARBON;12KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R3A04C	70795515	2007-000468	R-CHIP;1KOHM,5%,1/10W,DA,TP,2012	
R3A05C	70795533	2007-000774	R-CHIP;33KOHM,5%,1/10W,DA,TP,2012	
R3A06C	70795522	2007-000449	R-CHIP;180OHM,5%,1/10W,DA,TP,2012	
R3A07C	BY230094	2007-000757	R-CHIP;330KOHM,5%,1/10W,DA,TP,2012	
R3A08C	70795686	2007-000355	R-CHIP;12KOHM,5%,1/10W,DA,TP,2012	
R3A09C	70795539	2007-000981	R-CHIP;5.6KOHM,5%,1/10W,DA,TP,2012	
R3A10	70795005	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R3A11C	70795523	2007-000267	R-CHIP;1.8KOHM,5%,1/10W,DA,TP,2012	
R3A12C	70796026	2007-000502	R-CHIP;2.2OHM,5%,1/10W,DA,TP,2012	
R3A13C	70795704	2007-000931	R-CHIP;470OHM,5%,1/10W,DA,TP,2012	
R3A14	70795021	2001-000522	R-CARBON;22KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R3A16	70795006	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R3A17	70795036	2001-000613	R-CARBON;3.9KOHM,5%,1/8W,AA,TP,1.8X3.2M	
R3A18	70795036	2001-000613	R-CARBON;3.9KOHM,5%,1/8W,AA,TP,1.8X3.2M	
R3A19C	70795522	2007-000449	R-CHIP;180OHM,5%,1/10W,DA,TP,2012	
R3A22C	BY230238	2007-000703	R-CHIP;3.6KOHM,5%,1/10W,DA,TP,2012	
R3A23C	70795516	2007-000300	R-CHIP;10KOHM,5%,1/10W,DA,TP,2012	
R3A24C	70795527	2007-000586	R-CHIP;22KOHM,5%,1/10W,DA,TP,2012	
R3A25C	70795519	2007-000221	R-CHIP;1.2KOHM,5%,1/10W,DA,TP,2012	

Loc.No.	TSB Parts No.	Reference No.	Description ; Specification	Remark
R3A26C	70795686	2007-000355	R-CHIP;12KOHM,5%,1/10W,DA,TP,2012	
R3A27	70795044	2001-000800	R-CARBON;5.1KOHM,5%,1/8W,AA,TP,1.8X3.2M	
R3A28C	70795536	2007-000859	R-CHIP;4.3KOHM,5%,1/10W,DA,TP,2012	
R3A30	70795023	2001-000454	R-CARBON;2.2MOHM,5%,1/8W,AA,TP,1.8X3.2M	
R3A31	70795038	2001-000766	R-CARBON;43KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R3A32	70795038	2001-000766	R-CARBON;43KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R3A37C	BY230223	2007-001141	R-CHIP;7.5KOHM,5%,1/10W,DA,TP,2012	
R401C	70795705	2007-000941	R-CHIP;47KOHM,5%,1/10W,DA,TP,2012	
R402	70795004	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
R406	70795021	2001-000522	R-CARBON;22KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R407	70795058	2001-000977	R-CARBON;8.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	
R408	BY230019	2001-000221	R-CARBON;1.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	
R601C	BY230113	2007-001024	R-CHIP;560KOHM,5%,1/10W,DA,TP,2012	
R602C	70795684	2007-000282	R-CHIP;100KOHM,5%,1/10W,DA,TP,2012	
R603C	70795535	2007-000710	R-CHIP;3.9KOHM,5%,1/10W,DA,TP,2012	
R607	70795005	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R608	70795047	2001-000864	R-CARBON;56KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R609C	70795708	2007-001039	R-CHIP;56KOHM,5%,1/10W,DA,TP,2012	
R610	70795005	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R611	70795005	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R614	70795005	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R641	70795039	2001-000780	R-CARBON;470OHM,5%,1/8W,AA,TP,1.8X3.2MM	
R642	70795039	2001-000780	R-CARBON;470OHM,5%,1/8W,AA,TP,1.8X3.2MM	
R644	70795005	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R650	BY230243	2003-000111	R-METAL OXIDE;0.47ohm,5%,1W,AD,TP,4.3x12	
R651C	BY230091	2007-000001	R-CHIP;68KOHM,5%,1/10W,DA,TP,2012	
R654	BY230038	2001-000812	R-CARBON;5.6KOHM,5%,1/8W,AA,TP,1.8X3.2M	
R655C	70795705	2007-000941	R-CHIP;47KOHM,5%,1/10W,DA,TP,2012	
R656C	70795520	2007-000241	R-CHIP;1.5KOHM,5%,1/10W,DA,TP,2012	
R660	70795041	2001-000786	R-CARBON;47KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R661	70795032	2001-000660	R-CARBON;33KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R666C	70795704	2007-000931	R-CHIP;470OHM,5%,1/10W,DA,TP,2012	
R667C	70795704	2007-000931	R-CHIP;470OHM,5%,1/10W,DA,TP,2012	
R668C	70795516	2007-000300	R-CHIP;10KOHM,5%,1/10W,DA,TP,2012	
R669C	70795516	2007-000300	R-CHIP;10KOHM,5%,1/10W,DA,TP,2012	
R670	70795040	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	
R671	70795040	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	
R672	70795040	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	
R673	70795007	2001-000273	R-CARBON;100KOHM,5%,1/8W,AA,TP,1.8X3.2M	
R674	70795006	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R675	BY230164	2001-000032	R-CARBON;180OHM,5%,1/4W,AA,TP,2.4X6.4MM	
R676	70795029	2001-000633	R-CARBON;30KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R677	70795021	2001-000522	R-CARBON;22KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R678	70795021	2001-000522	R-CARBON;22KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R679	70795019	2001-000515	R-CARBON;220OHM,5%,1/8W,AA,TP,1.8X3.2MM	
R682C	70795527	2007-000586	R-CHIP;22KOHM,5%,1/10W,DA,TP,2012	
R685C	70795533	2007-000774	R-CHIP;33KOHM,5%,1/10W,DA,TP,2012	
R686	70795005	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R687	70795005	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R688	70795005	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R690C	70795708	2007-001039	R-CHIP;56KOHM,5%,1/10W,DA,TP,2012	
R691C	70795525	2007-000572	R-CHIP;220OHM,5%,1/10W,DA,TP,2012	
R693	70795041	2001-000786	R-CARBON;47KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R698C	70795516	2007-000300	R-CHIP;10KOHM,5%,1/10W,DA,TP,2012	
R699C	70795516	2007-000300	R-CHIP;10KOHM,5%,1/10W,DA,TP,2012	
R6P07	70795004	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
R6P08	70699068	2001-000685	R-CARBON;390ohm,2%,1/8W,AD,TP,1.8x3.2mm	
R6P09	70795020	2001-000449	R-CARBON;2.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	
R701	70795006	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R702	70795006	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R703	70795006	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R704	70795006	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R705	70795006	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R707	70795006	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R711	70795020	2001-000449	R-CARBON;2.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	
R716	70796067	2001-000362	R-CARBON;150OHM,5%,1/8W,AA,TP,1.8X3.2MM	
R717C	70795688	2007-000401	R-CHIP;150OHM,5%,1/10W,DA,TP,2012	
R718	70796067	2001-000362	R-CARBON;150OHM,5%,1/8W,AA,TP,1.8X3.2MM	
R719C	70795688	2007-000401	R-CHIP;150OHM,5%,1/10W,DA,TP,2012	
R720C	70795688	2007-000401	R-CHIP;150OHM,5%,1/10W,DA,TP,2012	
R722C	70795704	2007-000931	R-CHIP;470OHM,5%,1/10W,DA,TP,2012	
R727C	70795521	2007-000409	R-CHIP;15KOHM,5%,1/10W,DA,TP,2012	
R728C	70795521	2007-000409	R-CHIP;15KOHM,5%,1/10W,DA,TP,2012	
R731	70795006	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R807C	BY230097	2007-001166	R-CHIP;75OHM,5%,1/10W,DA,TP,2012	
R812C	BY230097	2007-001166	R-CHIP;75OHM,5%,1/10W,DA,TP,2012	
R813C	70795515	2007-000468	R-CHIP;1KOHM,5%,1/10W,DA,TP,2012	
R815C	70795515	2007-000468	R-CHIP;1KOHM,5%,1/10W,DA,TP,2012	
R828C	70795683	2007-000290	R-CHIP;100OHM,5%,1/10W,DA,TP,2012	

Loc.No.	TSB Parts No.	Reference No.	Description ; Specification	Remark
W121	70795040	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	
W122	70795040	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	
W505	70795004	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
< MISCELLANEOUS >				
CN1SS1	70796223	3711-000178	CONNECTOR-HEADER;1WALL,2P,1R,3.96mm,STRA	
CN301	BY634421	3708-000394	CONNECTOR-FPC/FC/PIC;6P,1.25mm,STRAIGHT,	
CN3A01	BY634023	3708-001165	CONNECTOR-FPC/FC/PIC;6P,1.25mm,STRAIGHT,	
CN3A02	BY634412	3710-001648	CONNECTOR-SOCKET;2P,1R,2.5mm,STRAIGHT,SN	
CN601	BY731051	AC39-00036B	CBF HARNESS;-,-,-,-,-,-,-,YHL200-02P,-,-	
CN602	BY634038	3708-001302	CONNECTOR-FPC/FC/PIC;7P,1.25mm,STRAIGHT,	
CN604	BY634026	3711-003749	CONNECTOR-HEADER;BOX,8P,2R,2mm,STRAIGHT,	
CN7F1	BY634589	3711-004310	CONNECTOR-HEADER;NOWALL,10P,1R,2.5MM,ANG	
DT7F1	BY634590	AC61-00153A	HOLDER-LED;SV-443F,ABS94HB,-,-,-,-	
F1SS01	BY634112	3601-001123	FUSE-CARTRIDGE;250V,1.6A,TIME-LAG,CERAMI	⚠
FC1SS1	BY634083	3602-000103	FUSE-CLIP;-,-,10mohm	
FC1SS2	BY634083	3602-000103	FUSE-CLIP;-,-,10mohm	
JC801	BY634558	3722-001575	JACK-RCA;4P/6P,3.5mm,NI,BLK,-	
PT1SS1	BY330068	AC26-00002C	TRANS SWITCHING;-,-,EE2621,-,UL/CSA/DEMK	⚠
RM701	BY730627	AC32-00002A	MODULE-REMOCON;-,GP1U291Q,38KHZ,-,7.3X13	
RS601	BY632005	AC34-20100B	SWITCH-REC;-,-,X-9,-	
SW601	BY632004	AC34-20100A	SWITCH-MODE;-,-,X-9,-	
SW701	BY632001	3404-000165	SWITCH-TACT;12V,50mA,160gf,6x6mm,SPST	
SW703	BY632001	3404-000165	SWITCH-TACT;12V,50mA,160gf,6x6mm,SPST	
SW708	BY632001	3404-000165	SWITCH-TACT;12V,50mA,160gf,6x6mm,SPST	
SW709	BY632001	3404-000165	SWITCH-TACT;12V,50mA,160gf,6x6mm,SPST	
SW712	BY6`32001	3404-000165	SWITCH-TACT;12V,50mA,160gf,6x6mm,SPST	
SW714	BY632001	3404-000165	SWITCH-TACT;12V,50mA,160gf,6x6mm,SPST	
SW719	BY632001	3404-000165	SWITCH-TACT;12V,50mA,160gf,6x6mm,SPST	
SW720	BY632001	3404-000165	SWITCH-TACT;12V,50mA,160gf,6x6mm,SPST	
SW723	BY632001	3404-000165	SWITCH-TACT;12V,50mA,160gf,6x6mm,SPST	
SW724	BY632001	3404-000165	SWITCH-TACT;12V,50mA,160gf,6x6mm,SPST	
TM401	BY634586	AC40-00011A	RF MODULATOR;RMUP74055VR,PAL G/I/K,-,-,-	
VA1SS1	BY634022	1405-001026	VARISTOR;470V,600A,9x7mm,TP	⚠
XT301	BY633009	2801-001397	CRYSTAL-UNIT;4.433619MHZ,HC-49/U-S 15PPM	
XT302	BY633012	2801-003399	CRYSTAL-UNIT;3.579545MHz,15ppm,28-AAA,S,	
XT602	BY633010	2801-003139	CRYSTAL-UNIT;8MHz,50ppm,28-AAA,22pF,80oh	

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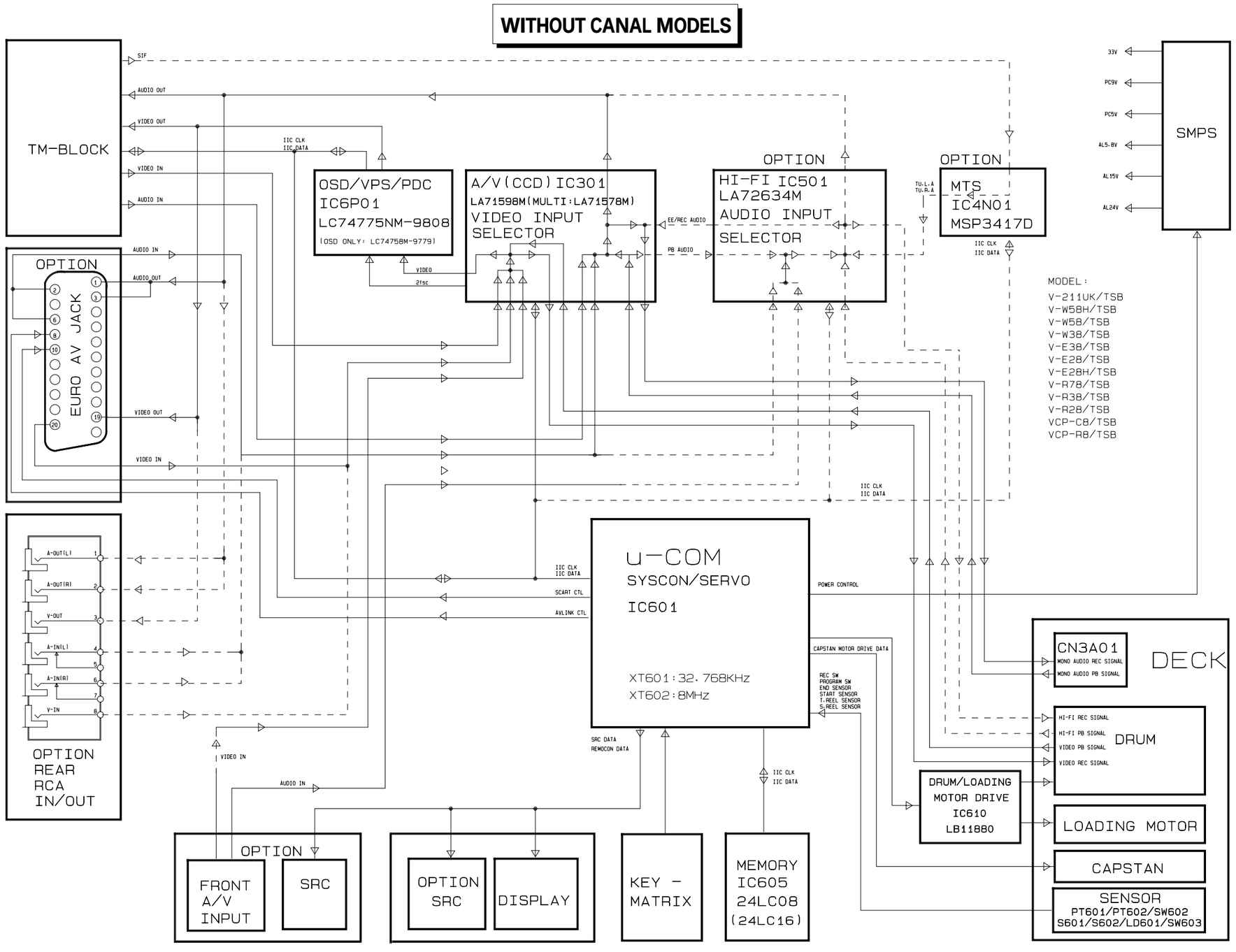
8. Block Diagram

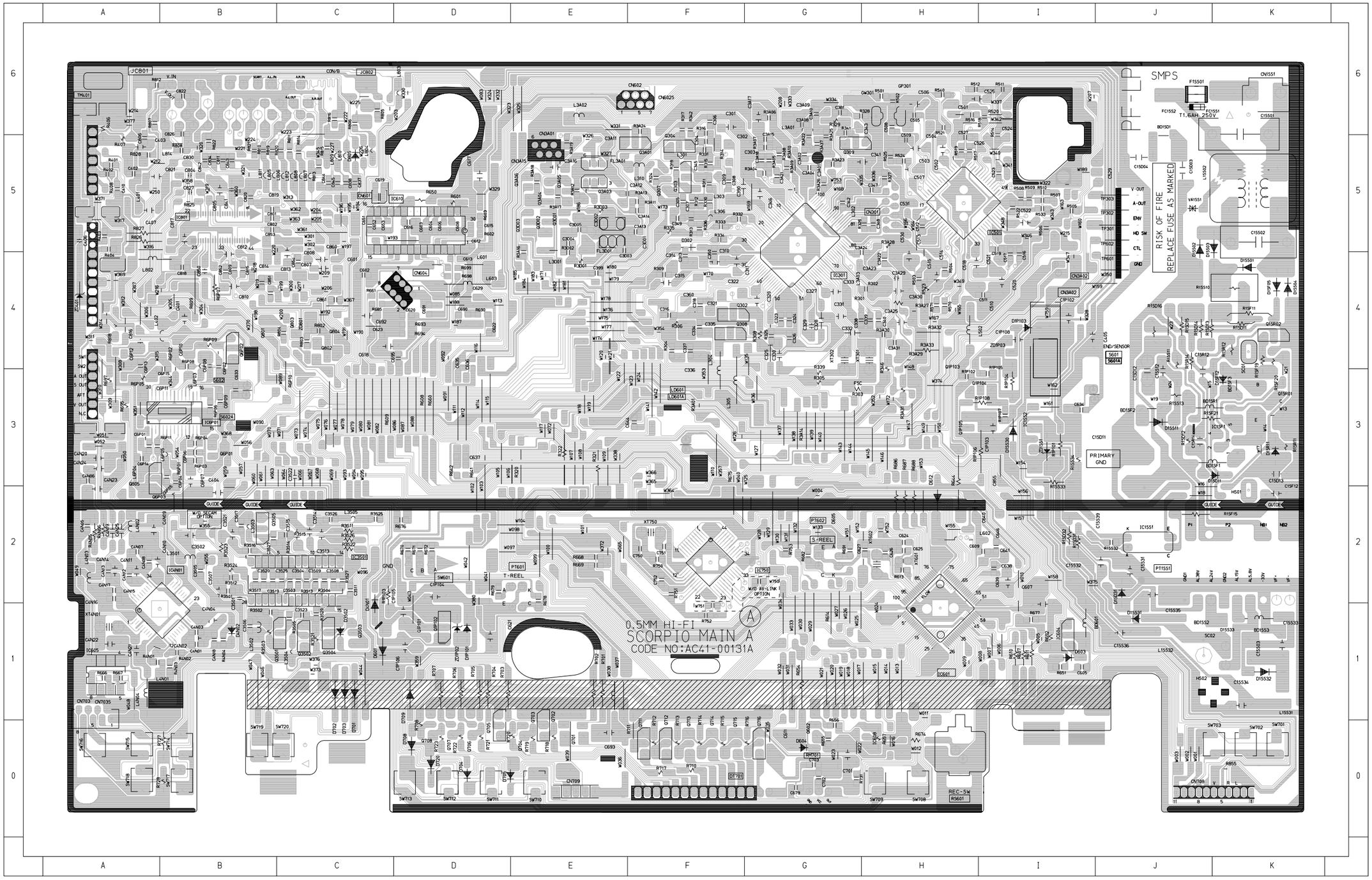


MEMO

9. PCB Diagrams

9-1 Main - - -

9-1 Main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SCORPIO MAIN A
CODE NO:AC41-00131A
SMPS
PFLP
RISK OF FIRE
REPLACE FUSE AS MARKED
PRIMARY GND
S-REEL
T-REEL
REC-5W

*** RESISTOR ***

R1P101 (I3)
R1P103 (C1)
R1P104 (I3)
R1P106 (I3)
R1P108 (H3)
R1SD11 (K4)
R1SD12 (J3)
R1SD13 (K4)
R1SD14 (K4)
R1SD15 (J4)
R1SD16 (J4)
R1SD31 (I2)
R1SD32 (I2)
R1SF11 (K4)
R1SF15 (K2)
R1SF19 (K3)
R1SF20 (K3)
R1SF21 (K3)
R1SR11 (K3)
R1SR12 (K4)
R1SR14 (K3)
R1SS10 (K4)
R1SS11 (J4)
R1SS13 (J3)
R1SS33 (I2)
R1SS34 (I3)
R303 (G3)
R305 (G3)
R306 (F4)
R308 (G4)
R314 (F5)
R329 (G6)
R335 (F5)
R339 (G3)
R346 (H3)
R3A31 (H3)
R3D01 (E4)
R3D03 (E5)
R3S03 (B1)
R3S11 (C2)
R3S14 (B2)
R3S21 (C1)
R3S22 (C2)
R3S23 (B2)
R3S24 (B2)
R3S26 (C2)
R406 (A5)
R407 (A5)
R4N05 (A2)
R4N06 (A2)
R523 (H4)
R601 (D5)
R607 (I1)
R610 (I1)
R611 (I1)
R650 (D5)
R654 (G0)
R657 (H0)
R692 (I1)
R695 (A3)
R697 (A3)
R6P05 (A3)
R6P09 (B4)
R701 (E0)
R702 (E0)
R703 (D0)
R704 (D0)
R705 (D0)
R706 (D0)
R707 (D0)
R708 (D0)
R710 (F0)
R712 (F0)
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R716 (G0)
R717 (F0)
R718 (E0)
R719 (E0)
R720 (D0)
R721 (D0)
R722 (D0)
R723 (D0)
R727 (A0)
R728 (A0)
XT301 (H3)
XT302 (G3)
XT4N01 (A1)
XT602 (H2)
XT750 (F2)

*** CONDENSER ***

C1P102 (I4)
C1P103 (I3)
C1P104 (D1)
C1P105 (C1)
C1P106 (D1)
C1P108 (I4)
C1SD03 (J5)
C1SD04 (J5)
C1SD12 (J3)
C1SD13 (K3)
C1SF12 (K2)
C1SR12 (K4)
C1SR14 (K3)
C1SS01 (K6)
C1SS02 (K5)
C1SS03 (K1)
C1SS12 (J3)
C1SS31 (J2)
C1SS32 (J2)
C1SS33 (K1)
C1SS34 (K0)
C1SS35 (J1)
C1SS36 (J1)
C1SS39 (J2)
C301 (F6)
C302 (F5)
C303 (F5)
C309 (F5)
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C640 (I2)
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C692 (C4)
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C817 (B5)
C819 (B5)
C821 (A5)
C841 (B5)
XT601 (H2)

*** DIODE ***

D1P101 (D1)
D1P103 (I4)
D1SD11 (K2)
D1SD31 (J2)
D1SF05 (K4)
D1SF12 (K3)
D1SR11 (K3)
D1SS01 (K4)
D1SS02 (K5)
D1SS03 (K4)
D1SS04 (K4)
D1SS11 (J3)
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D1SS31 (J1)
D1SS32 (K1)
D1SS33 (K1)
D302 (F5)
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D4N02 (B1)
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D702 (C0)
D703 (C0)
D704 (D0)
D705 (D0)
D708 (D0)
D709 (D1)
D720 (D0)
D805 (C5)
ZD1P02 (D1)
ZD1P03 (I4)
ZD1SS1 (I3)
ZD401 (A4)
ZD801 (C4)

*** TR ***

IC1SS2 (I3)
IC604 (I1)
IC608 (H0)
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Q1P102 (D1)
Q1P103 (I3)
Q1P104 (I3)
Q1P105 (I3)
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Q3D02 (E5)
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Q3S02 (C1)
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Q3S04 (C1)
Q3S05 (B2)
Q602 (G0)
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Q6P02 (B4)
Q6P03 (A2)
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Q804 (C4)
Q805 (A2)

*** IC&WAFER ***

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CN708 (K0)
CN709 (E0)
IC3S01 (B1)
IC605 (A1)
IC610 (D5)

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R1P107 (I3)
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R3S12 (B2)
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R691 (G2)
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R6P06 (B3)
R6P08 (B3)
R6P11 (A3)
R731 (H0)
R750 (F2)
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R753 (G2)
R802 (C4)
R803 (C4)
R804 (B4)
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R806 (C6)
R807 (A6)
R808 (B5)
R810 (B5)
R811 (B5)
R812 (A6)
R813 (C5)
R814 (C5)
R815 (C5)
R816 (C6)
R819 (B5)
R820 (B5)
R821 (B5)
R822 (B5)
R828 (A5)

MEMO

10. Schematic Diagrams

◆ Block Identification of Main PCB - 10-2

10-1 S.M.P.S. (Free)- 10-3

10-2 Power - 10-4

10-3 System Control/Servo/Display - 10-5

10-4 Audio/Video - 10-6

10-5 TM-Block - 10-7

10-6 OSD/ VPS/ PDC - 10-8

10-7 Input-Output - 10-9

Note

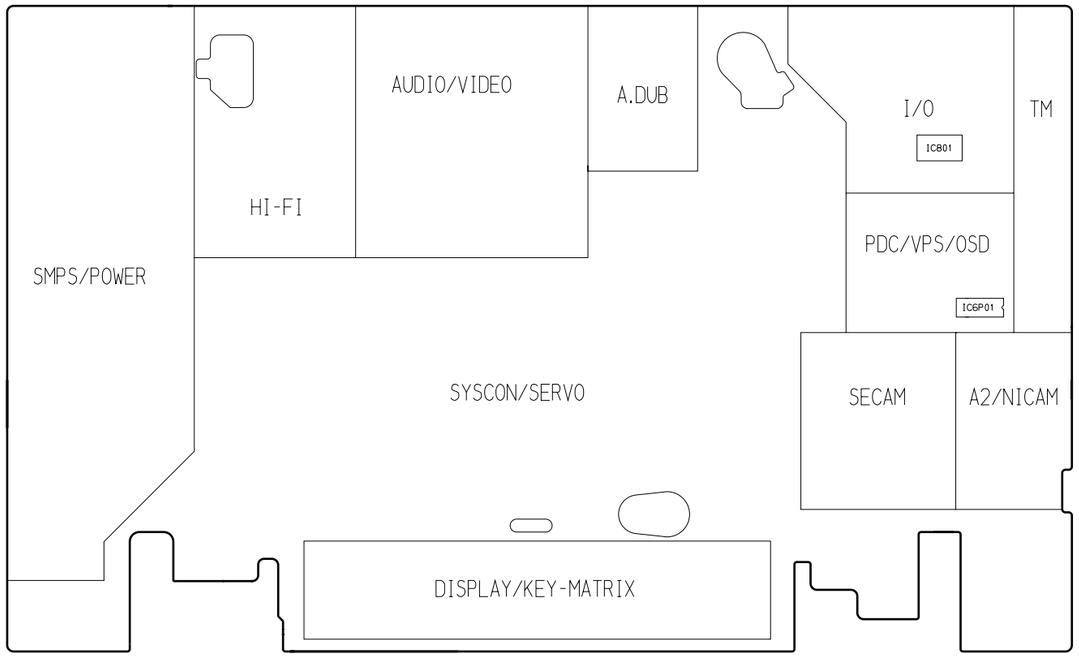
For schematic Diagram
- Resistors are in ohms, 1/8W unless otherwise noted.

Special note :
Most semiconductor devices are electrostatically sensitive and therefore require the special handling techniques described under the "electrostatically sensitive (ES) devices" section of this service manual.

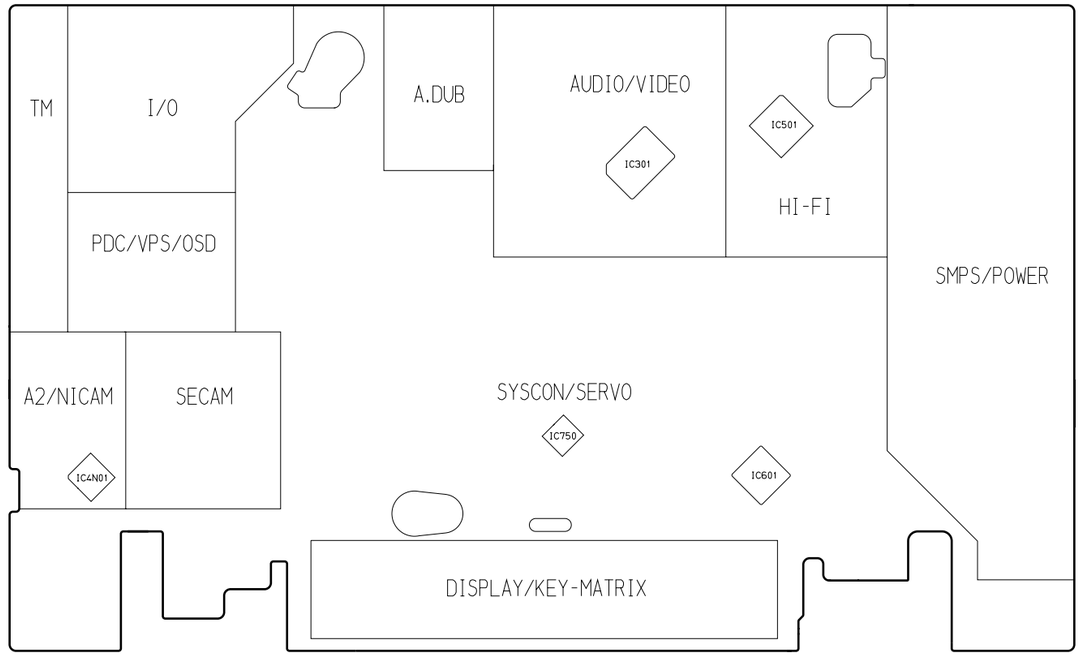
Note :
Do not use the part number shown on this drawing for ordering. The correct part number is shown in the parts list (may be slightly different or amended since this drawing was prepared).

Important safety notices :
Components identified with the mark ⚠ have the special characteristics for safety. When replacing any of these components.
Use only the same type.

◆ Block Identification of Main PCB

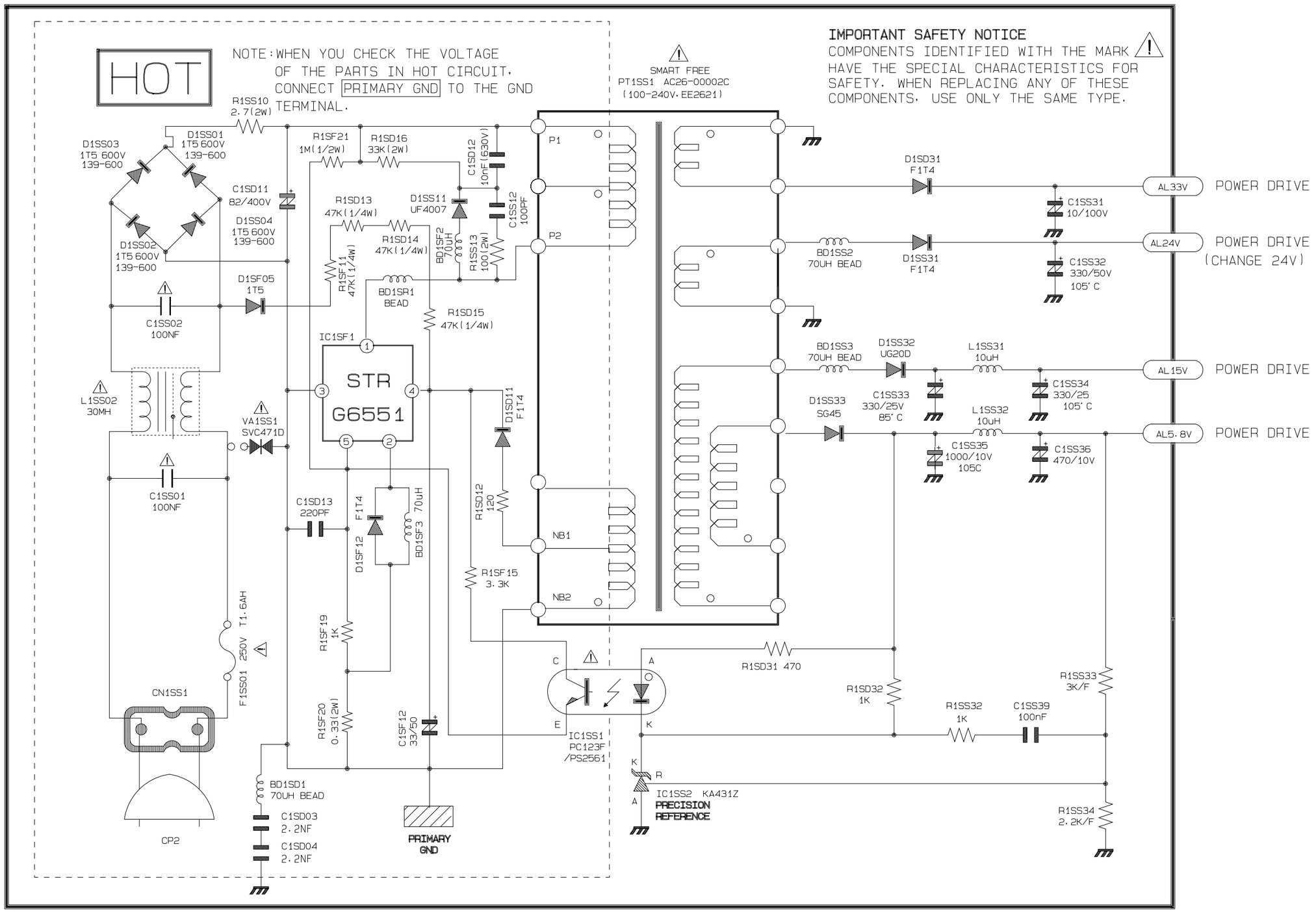


Component Side

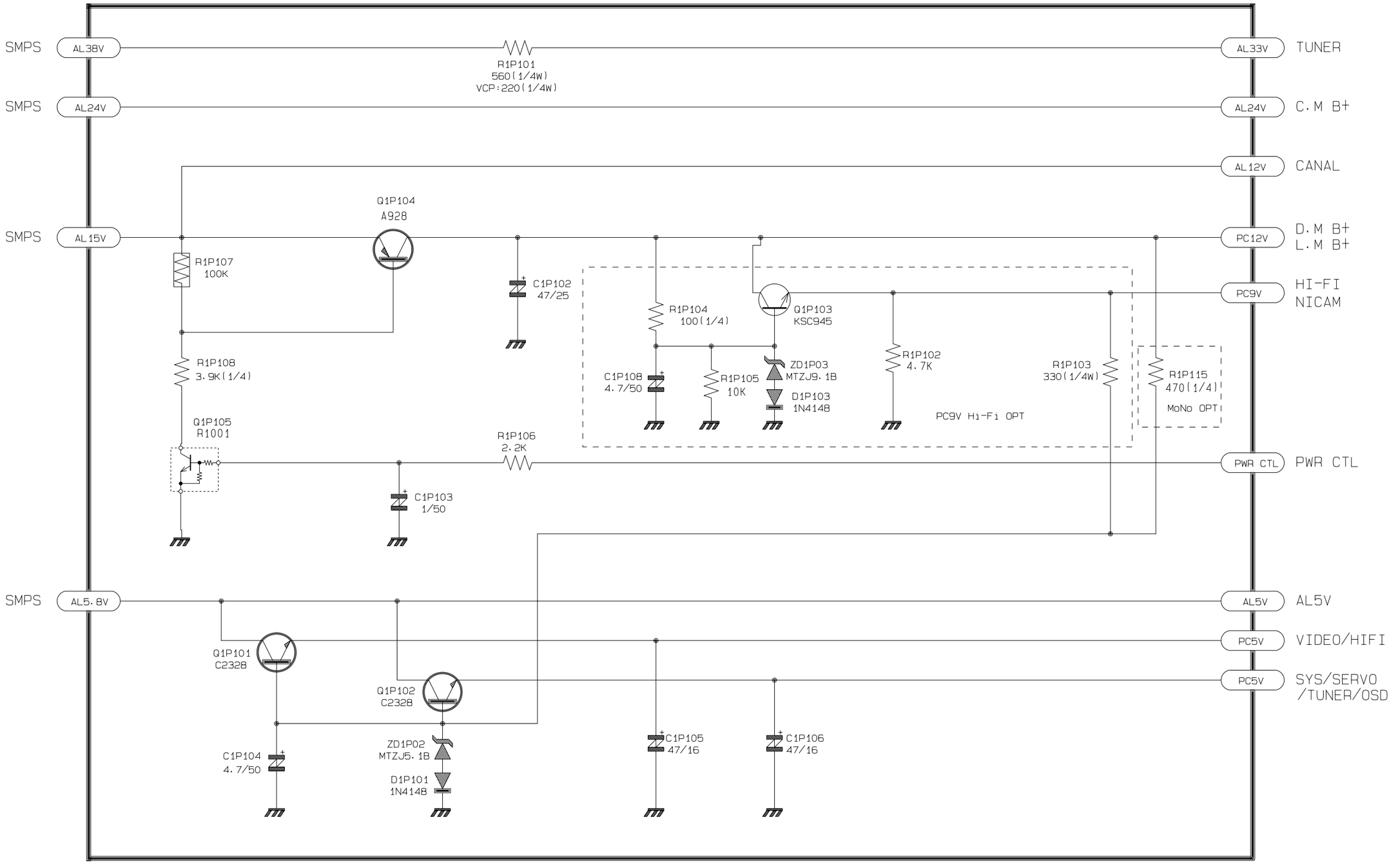


Conductor Side

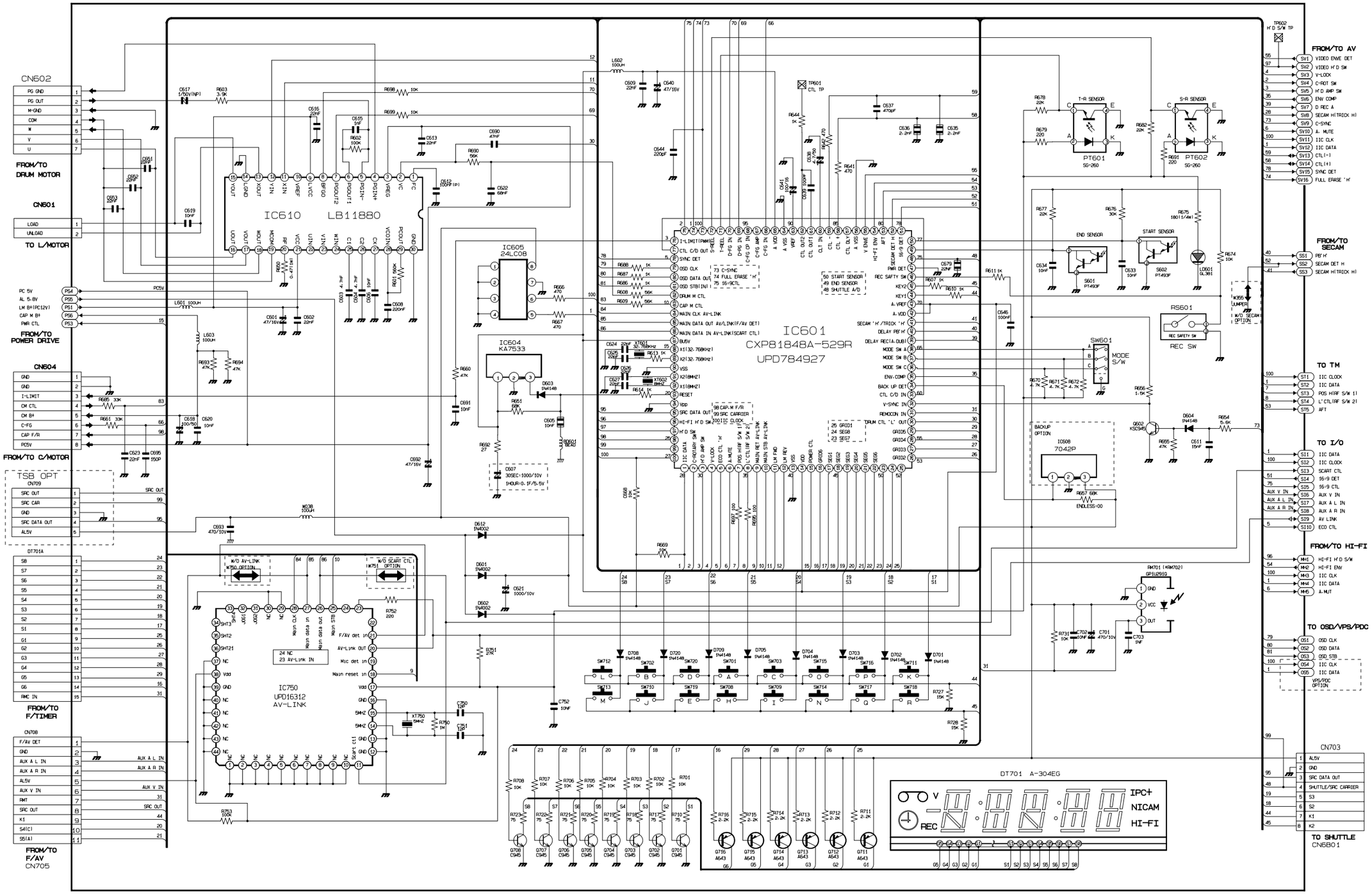
10-1 S.M.P.S. (FREE)



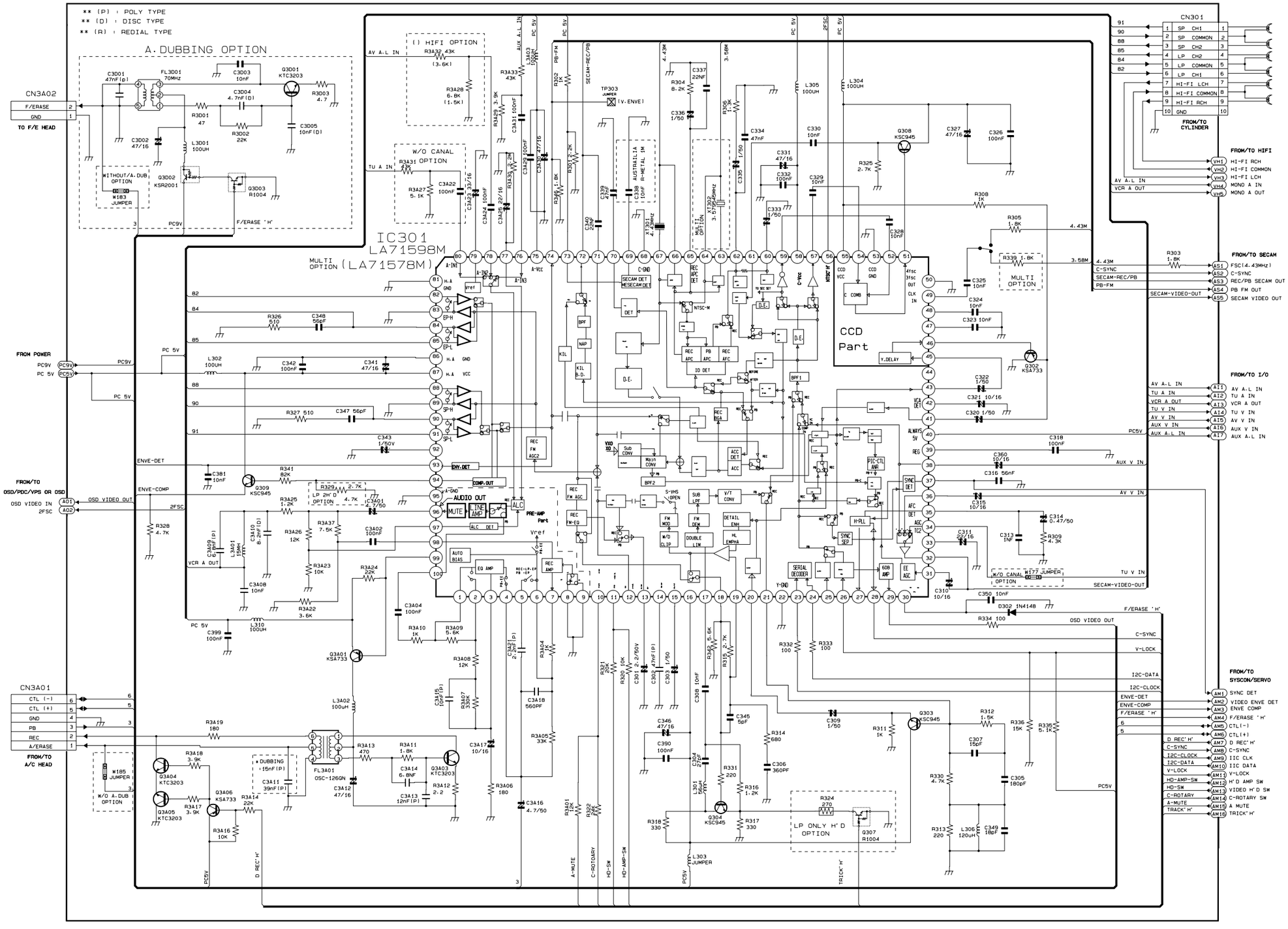
10-2 Power


SMPS
AL38V
R1P101
560(1/4W)
VCP:220(1/4W)
AL33V
TUNER
SMPS
AL24V
AL24V
C.M B+
AL12V
CANAL
SMPS
AL15V
Q1P104
A928
R1P107
100K
C1P102
47/25
PC12V
D.M B+
L.M B+
PC9V
HI-FI
NICAM
R1P104
100(1/4)
Q1P103
KSC945
R1P108
3.9K(1/4)
C1P108
4.7/50
R1P105
10K
ZD1P03
MTZJ9.1B
D1P103
1N4148
R1P102
4.7K
R1P103
330(1/4W)
R1P115
470(1/4)
MoNo OPT
PC9V Hi-Fi OPT
Q1P105
R1001
R1P106
2.2K
PWR CTL
PWR CTL
C1P103
1/50
SMPS
AL5.8V
AL5V
AL5V
Q1P101
C2328
PC5V
VIDEO/HIFI
Q1P102
C2328
PC5V
SYS/SERVO
/TUNER/OSD
C1P104
4.7/50
ZD1P02
MTZJ5.1B
D1P101
1N4148
C1P105
47/16
C1P106
47/16

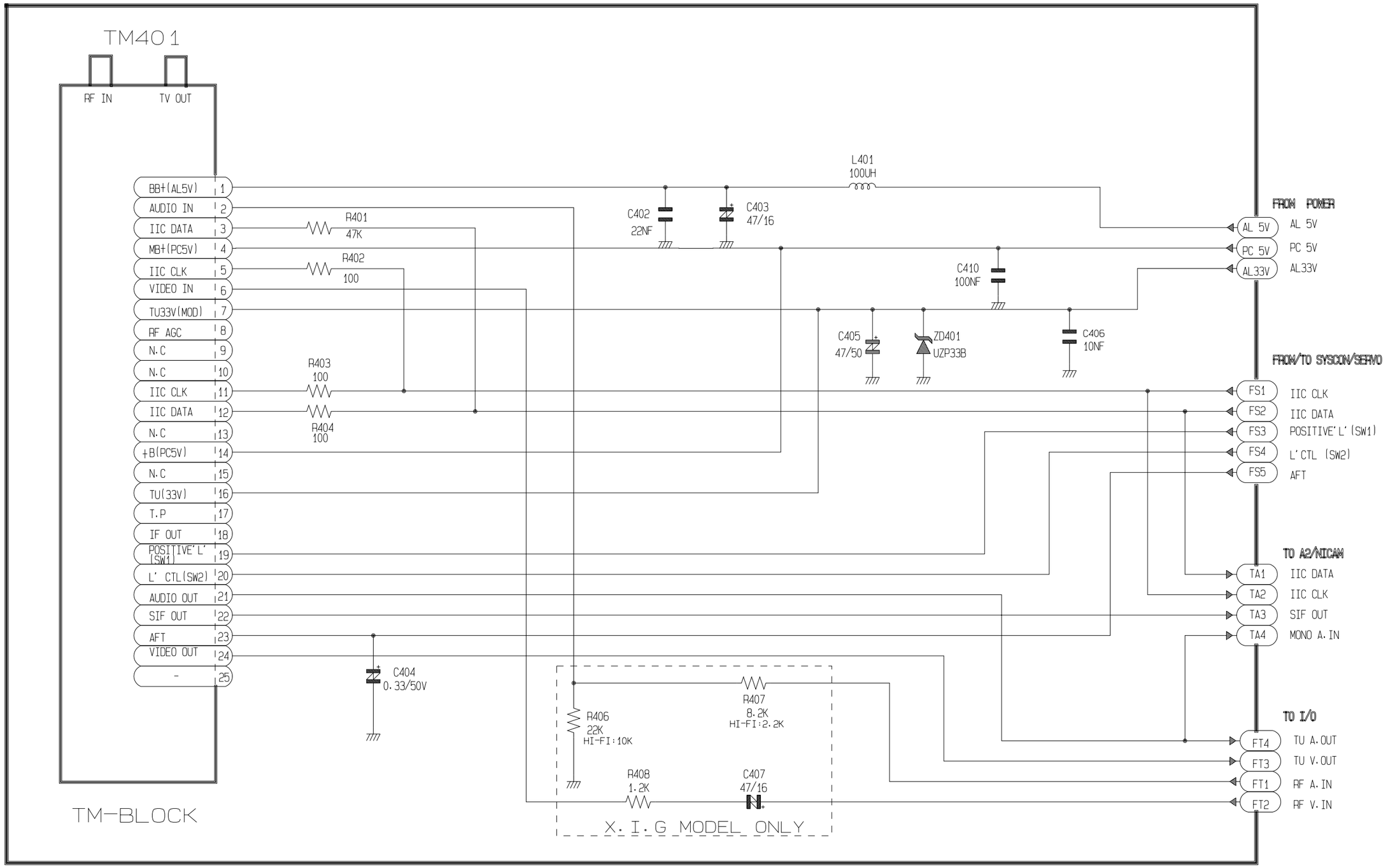
10-3 System Control/Servo/Display



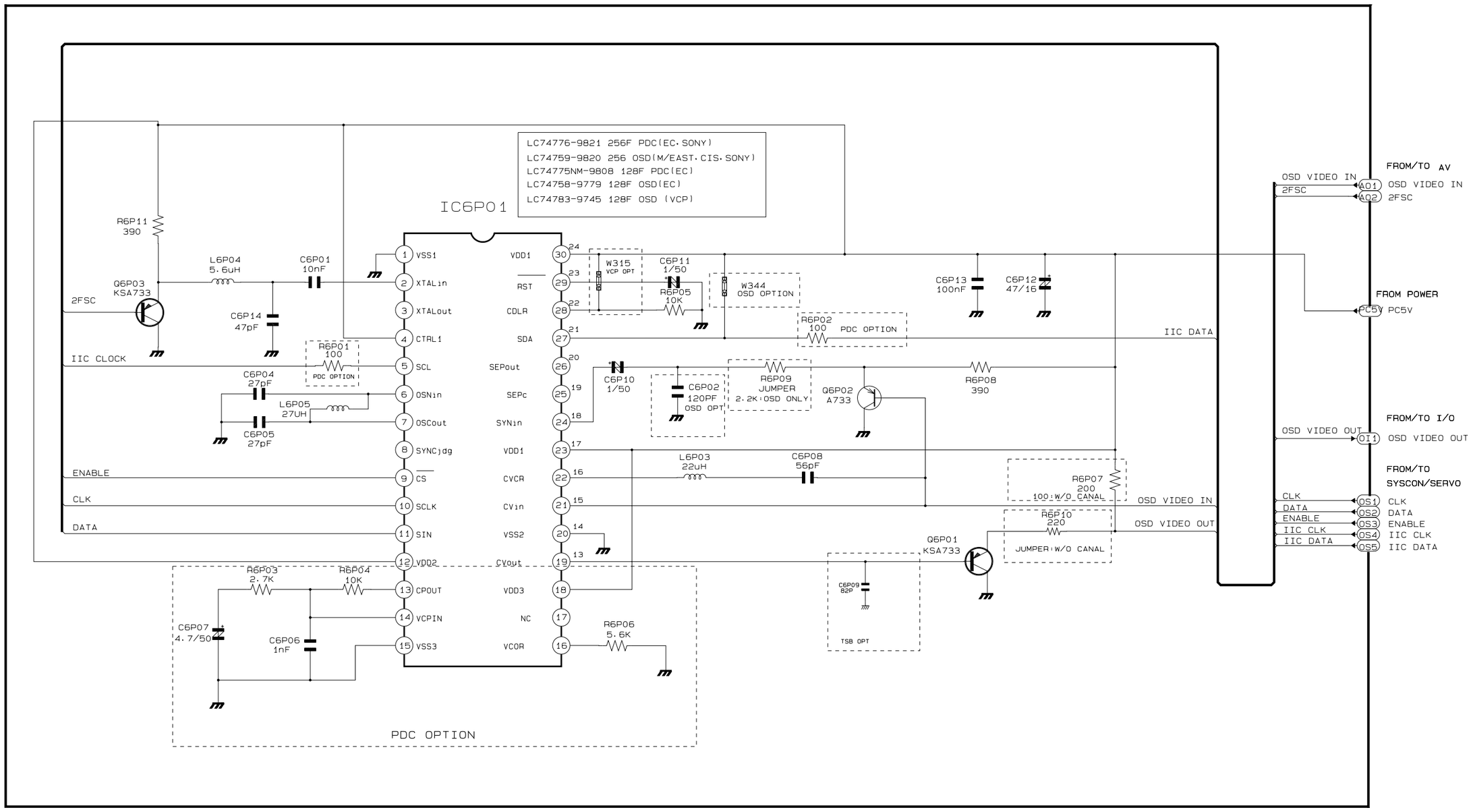
10-4 Audio/Video



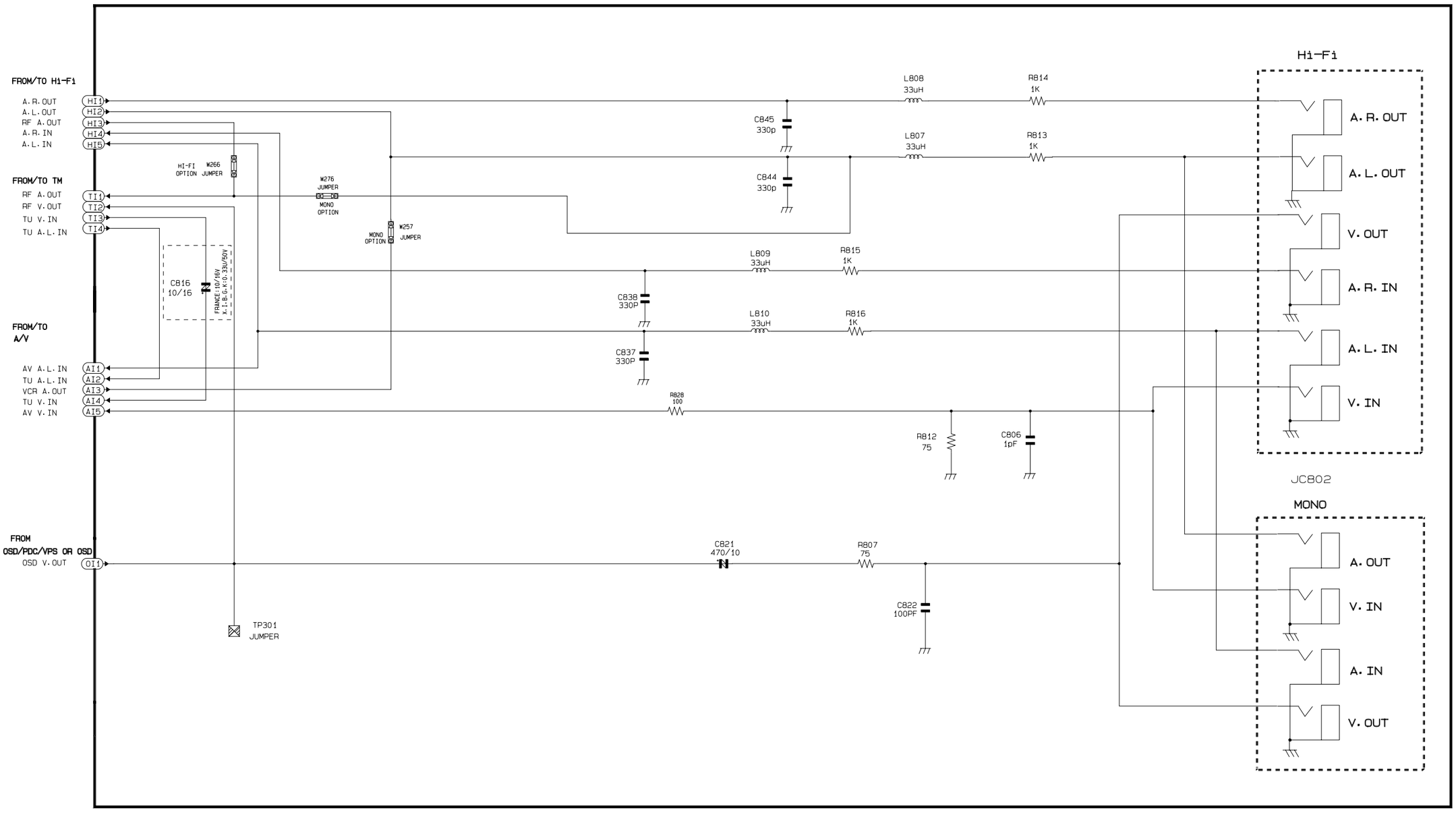
10-5 TM-Block


TM401
RF IN
TV OUT
BB+(AL5V) 1
AUDIO IN 2
IIC DATA 3
MB+(PC5V) 4
IIC CLK 5
VIDEO IN 6
TU33V(MOD) 7
RF AGC 8
N.C 9
N.C 10
IIC CLK 11
IIC DATA 12
N.C 13
+B(PC5V) 14
N.C 15
TU(33V) 16
T.P 17
IF OUT 18
POSITIVE'L' (SW1) 19
L' CTL(SW2) 20
AUDIO OUT 21
SIF OUT 22
AFT 23
VIDEO OUT 24
- 25
R401 47K
R402 100
R403 100
R404 100
L401 100UH
C402 22NF
C403 47/16
C404 0.33/50V
C405 47/50
ZD401 UZP33B
C406 10NF
C410 100NF
R406 22K HI-FI:10K
R407 8.2K HI-FI:2.2K
R408 1.2K
C407 47/16
X.I.G MODEL ONLY
TM-BLOCK
FROM POWER
AL 5V
PC 5V
AL33V
FROM/TO SYSCON/SERVO
FS1 IIC CLK
FS2 IIC DATA
FS3 POSITIVE'L'(SW1)
FS4 L'CTL (SW2)
FS5 AFT
TO A2/NICAM
TA1 IIC DATA
TA2 IIC CLK
TA3 SIF OUT
TA4 MONO A.IN
TO I/O
FT4 TU A.OUT
FT3 TU V.OUT
FT1 RF A.IN
FT2 RF V.IN

10-7 OSD/ VPS/ PDC



10-8 Input-Output



MEMO